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FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

FEBRUARY, 1951

Fireboat Goes into Action at Big Chicago Fire (Article in This Issue)

A CASE - SHEPPERD - MANN PUBLICATION

Suggesting A NEW MANUAL METHOD of artificial respiration

INhalation

EXhalation

We believe you will be interested to know of a new method of artificial respiration, requiring no equipment of any kind. Early experiments indicate that it ventilates a victim's lungs better than prone pressure, especially since it begins by getting breath IN instead of forcing more OUT. The method consists merely of lifting the hips a few inches and then lowering them.

Many variations are possible. Prone pressure may be used as part of the maneuver. In aiding very heavy persons, often only one hip needs to be lifted (rolling rather than raising the hips). In most cases swaying with straight arms (see pictures) makes lifting easy.

JOHN HAVEN EMERSON

Published References: Emerson, J. H., BULLETINS, 1948, 1949, 1950. Emerson, J. H., OCCUPATIONAL HAZARDS, 12:16, 1950. Thompson, T. C., JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, 104:307, 1935. Garrison, D. L., SAFETY ENGINEERING, 99:18, 1950. Whittenberger, J. L. and Sarnoff, S. J., MEDICAL CLINICS OF NORTH AMERICA, 34:1349, 1950. New York Academy of Medicine, JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, 144:25, 1950. Wood, J. R., JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, 144:606, 1950.

for **"SECOND AID"**

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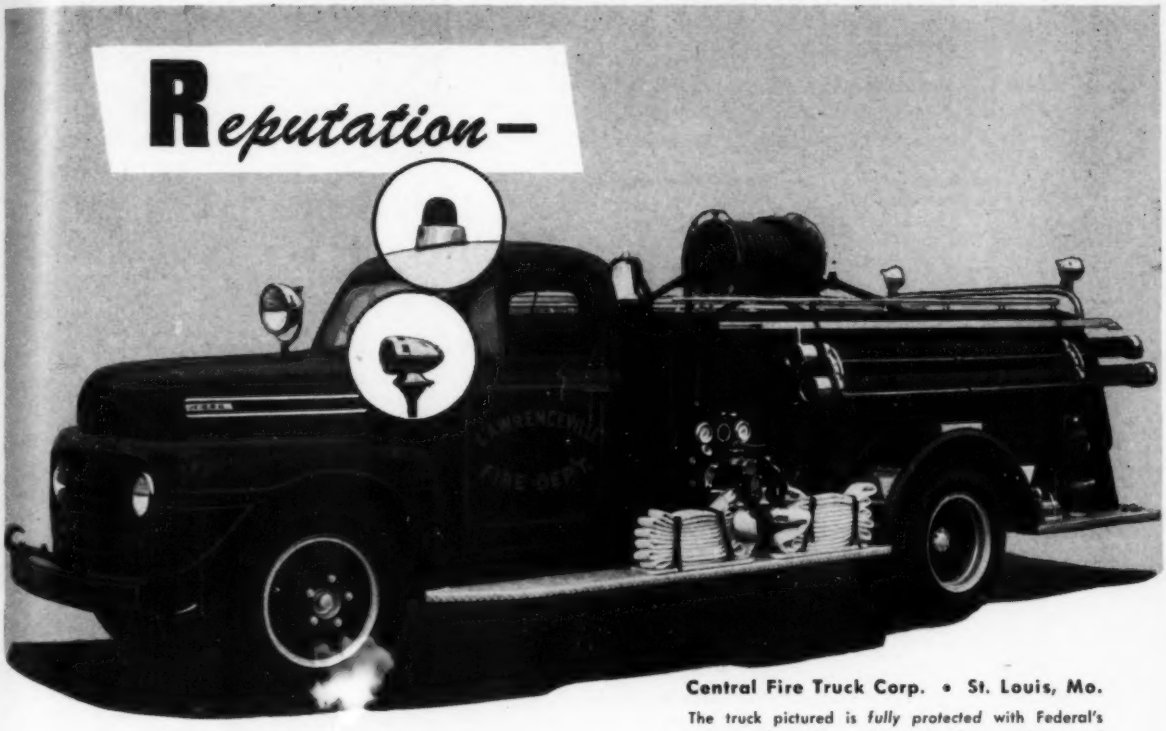

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FIRE ENGINEERING

A Consolidation of FIRE AND WATER ENGINEERING, THE FIRE ENGINEER, FIRE PROTECTION *and* FIRE SERVICE

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FRED SHEPPERD
Editor

ROI B. WOOLLEY
Assistant Editor

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THERE are many ways of judging the value of a professional journal such as FIRE ENGINEERING. One of the best is to measure it by the three "R's" of publishing: Readership—Retention—and Reference.

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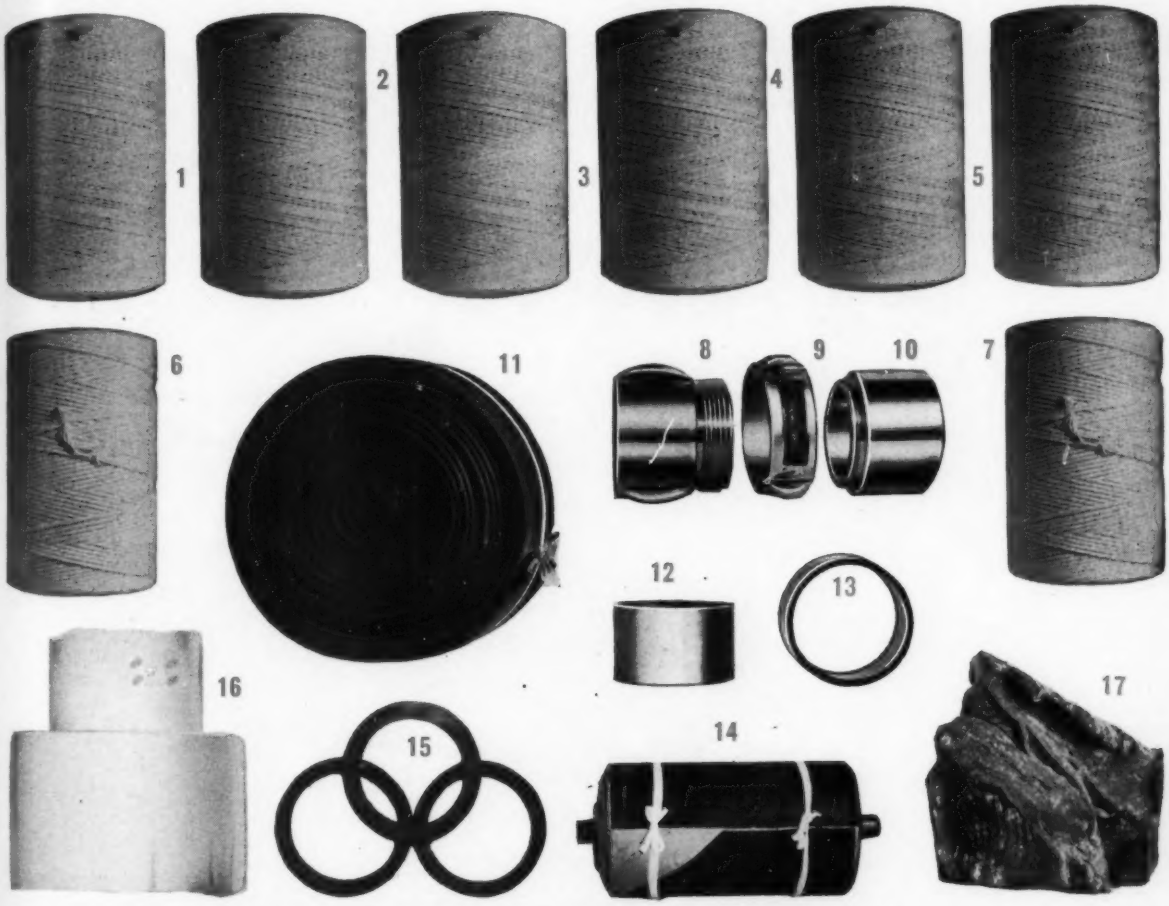

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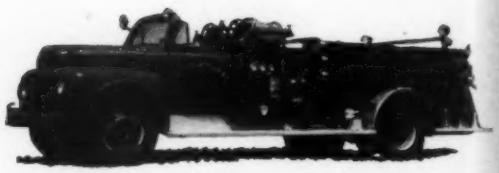

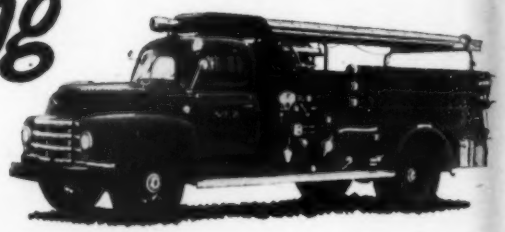

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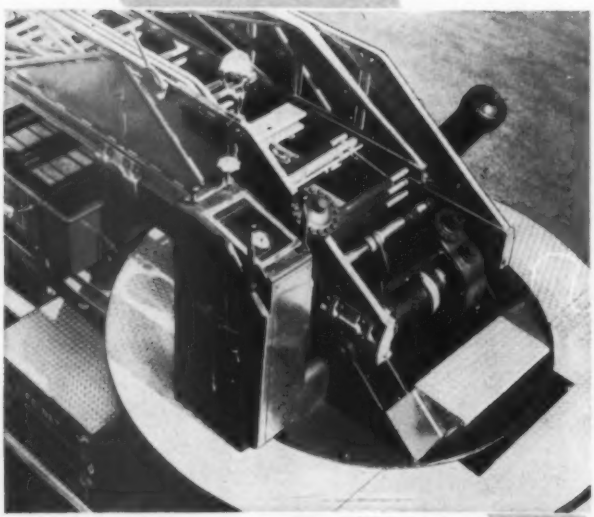

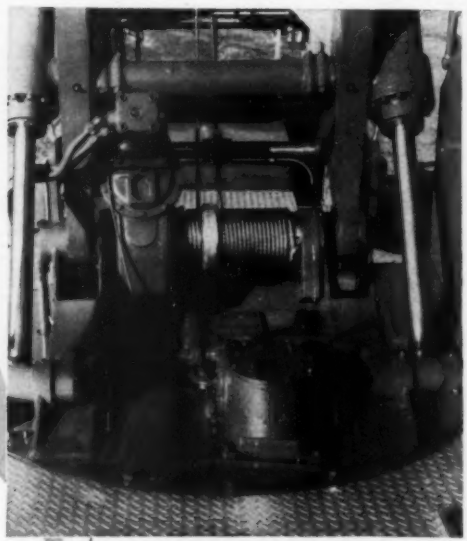

- Larger platform (94 in. diameter) affords ample room with safety for all operations. Platform of heavy steel with non-skid safety tread surface.

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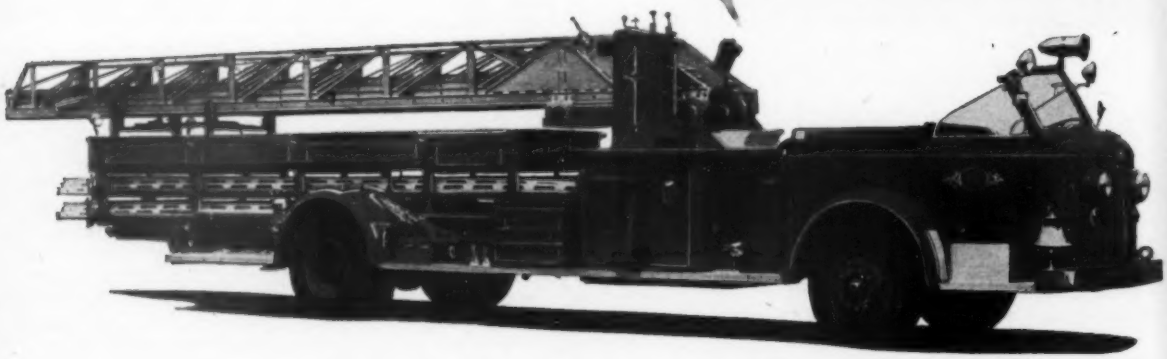

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Exclusive Aerial Features include

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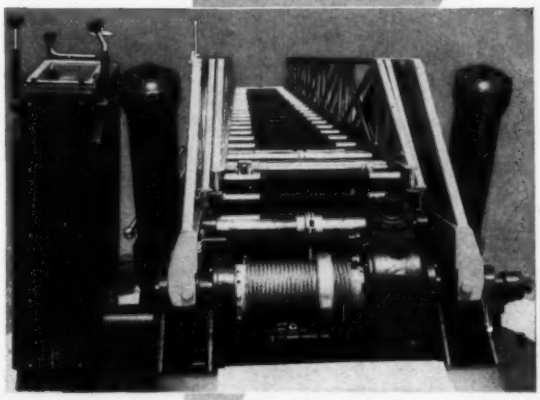
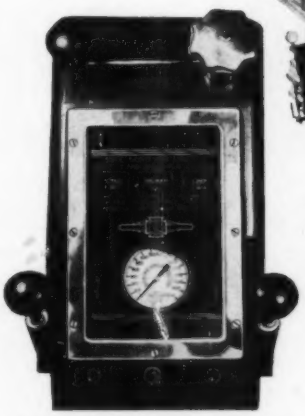
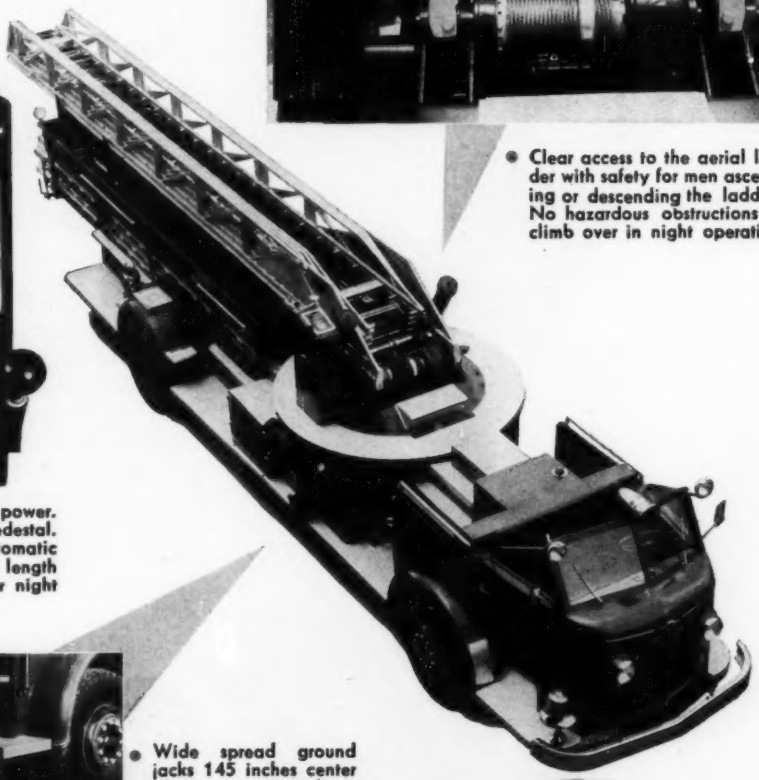


- Clear access to the aerial ladder with safety for men ascending or descending the ladder. No hazardous obstructions to climb over in night operation.





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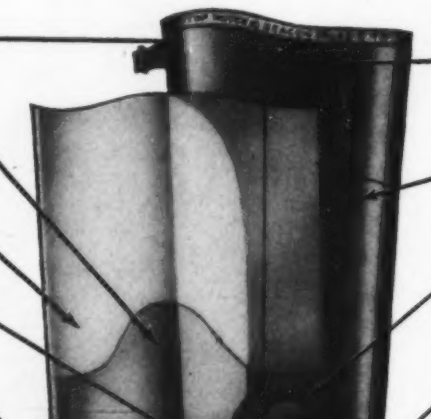

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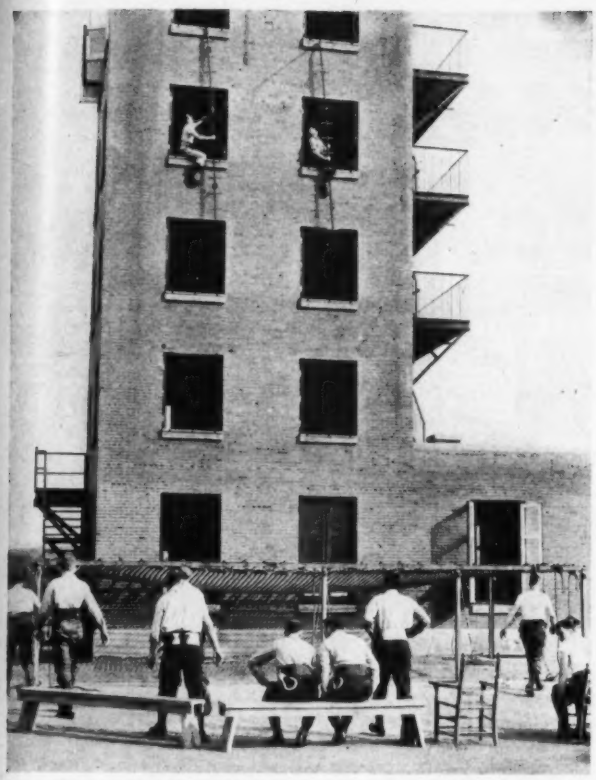

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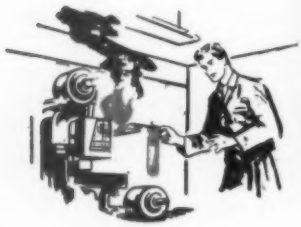

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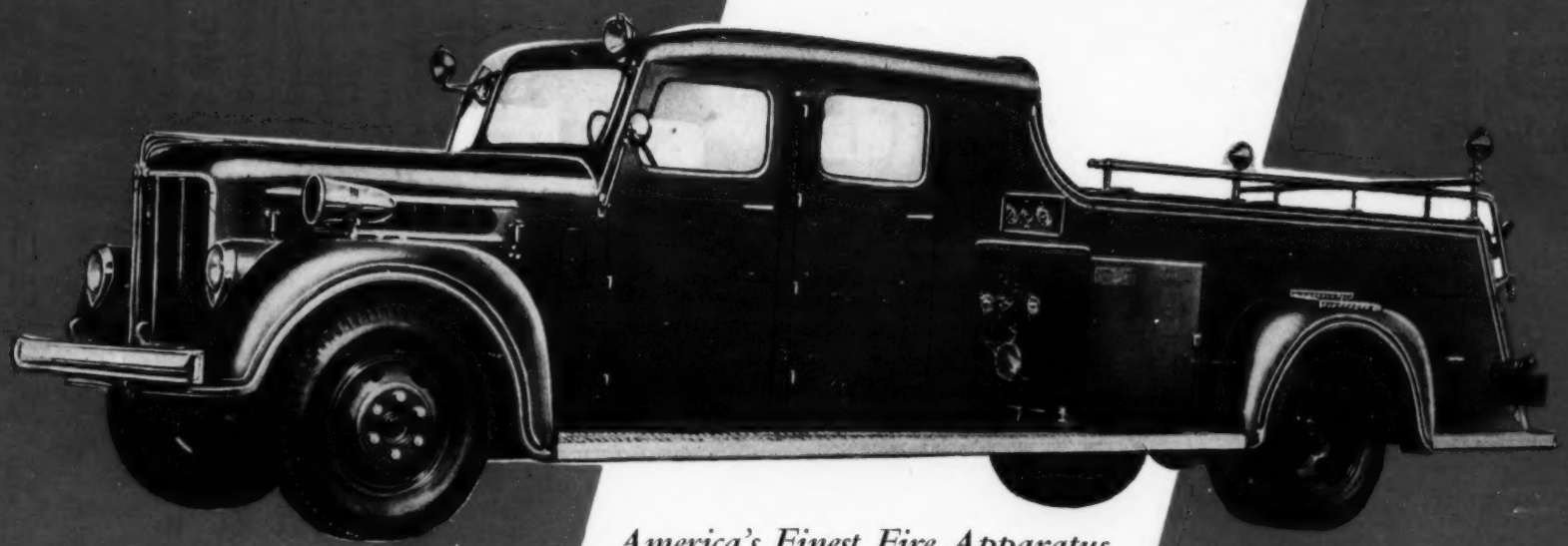

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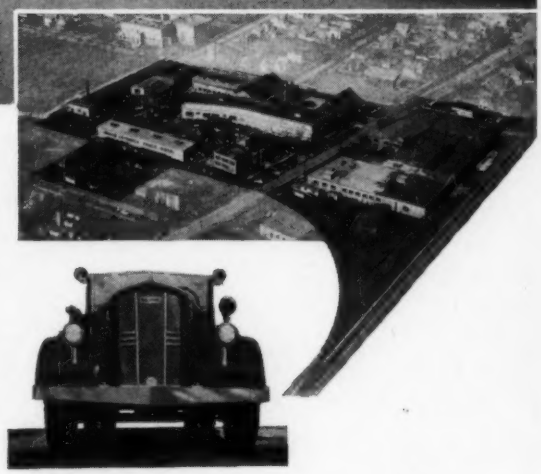

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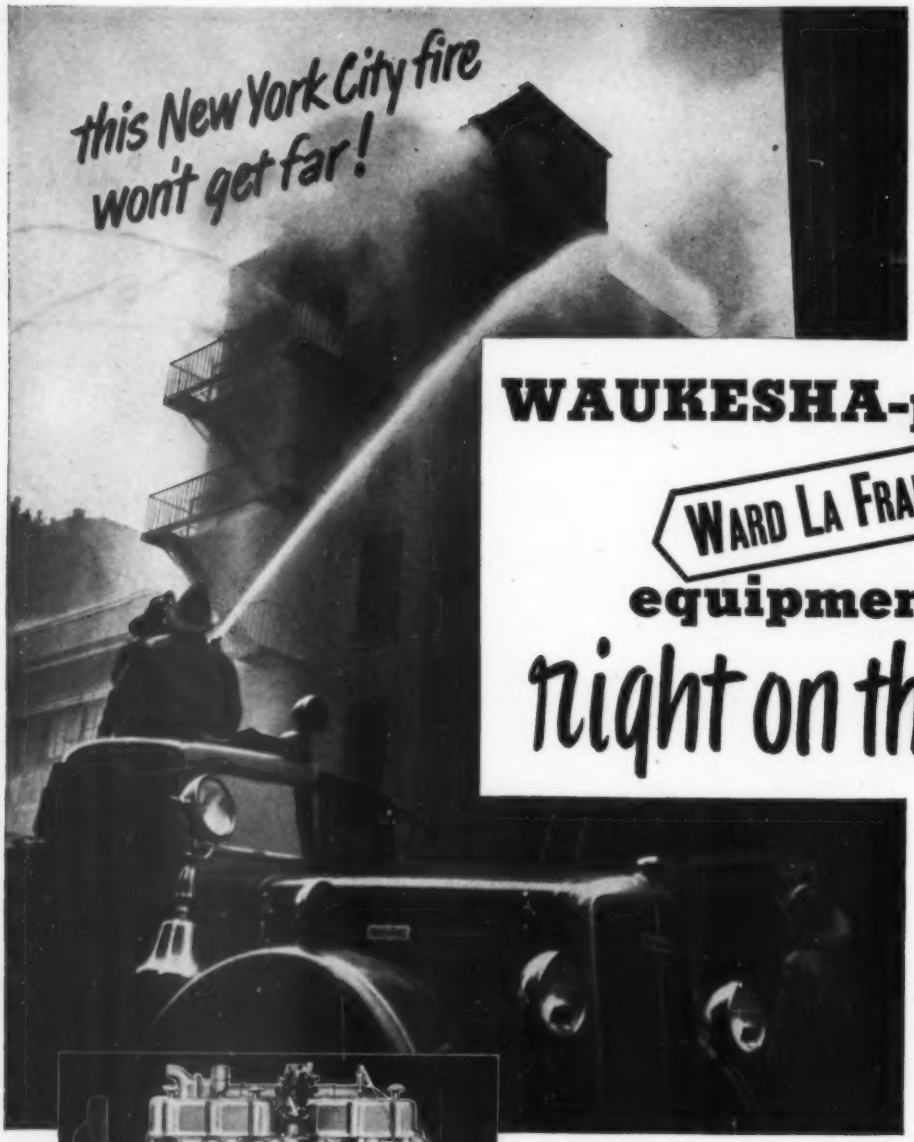

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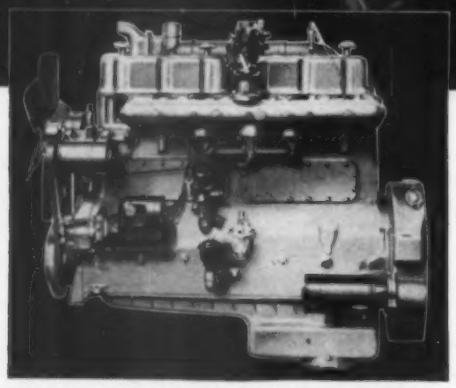

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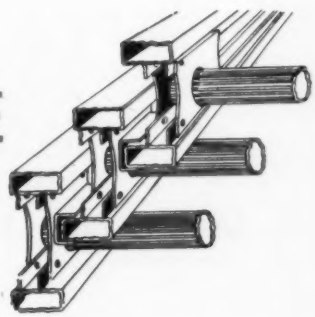

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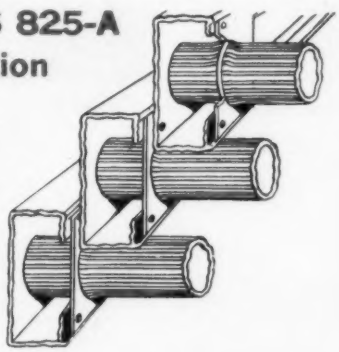

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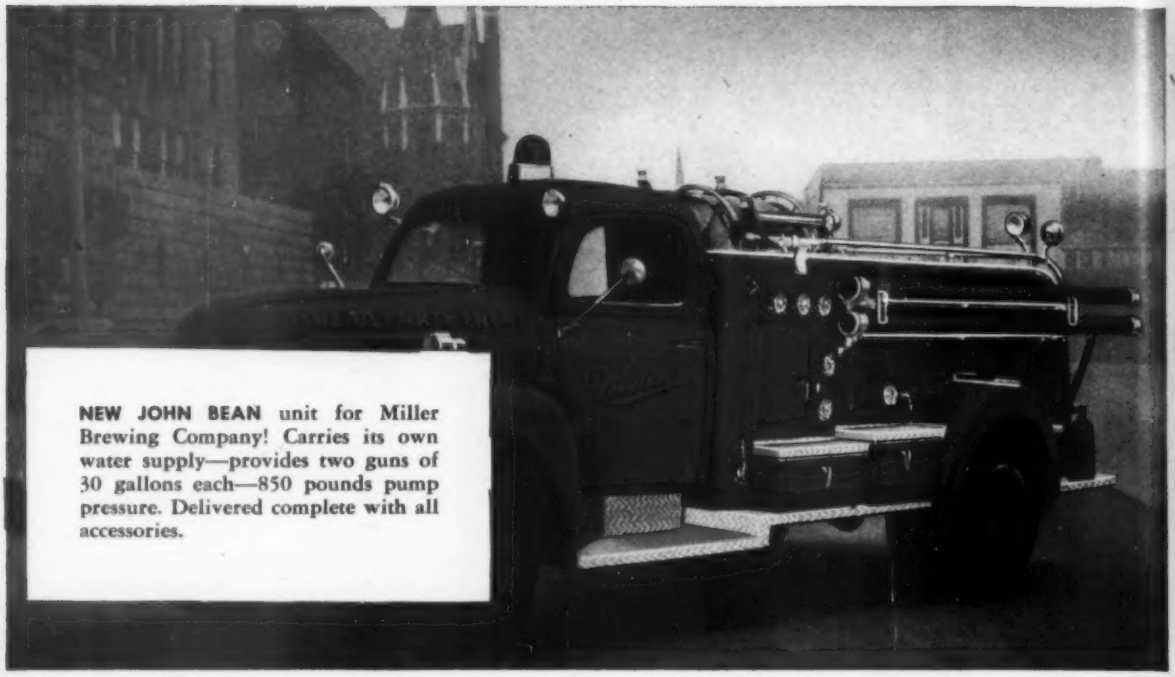

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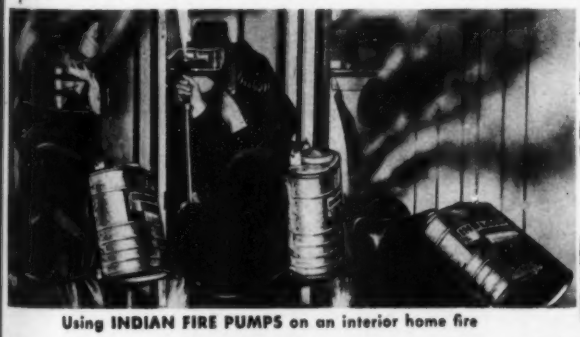

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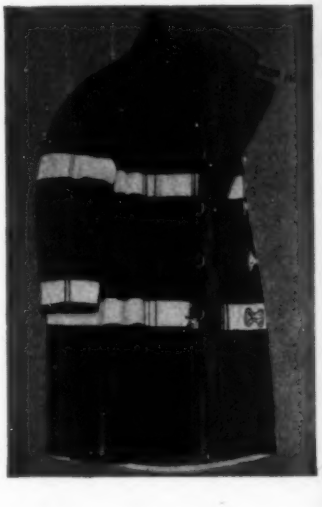

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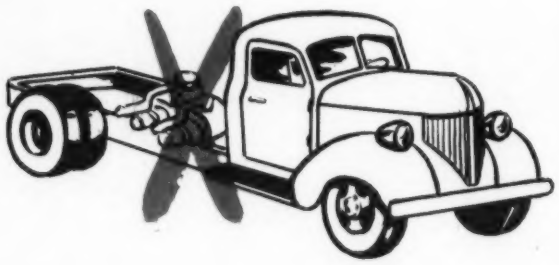

NOT THIS
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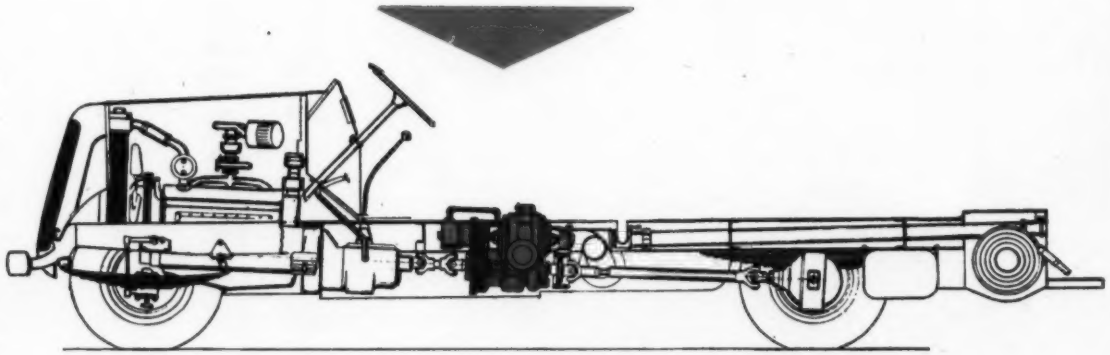

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FEBRUARY, 1951

FIRE ENGINEERING

VOL. 104, NO. 2

With the Editor

Tying Up Firefighters With Red Tape

Fire officers who have been called on to fight fires in or on Government installations have some idea of the handicaps and red tape involved in such operations. All too often the local fire chief is kept in ignorance of the hazards in such occupancies. All too often he and his fire fighters never see the inside of such properties until they are frantically called, as a last resort, to try to control a blaze that is already "in the sky." All too often the local fire forces are blamed for the fire's getting away by a public that has no knowledge of the true causes of the fire, or the actual losses involved, or the handicaps under which the fire was fought.

Because of this fact, and because firemen have found the Government singularly uncooperative in other ways, such as refusing to protect fire fighters and apparatus against injuries incurred while operating on Federal property, experienced fire officers do not relish fighting fires in any Government installation even under most favorable conditions.

The height to which Government inefficiency, incompetency and red tape can be carried was tragically demonstrated in the burning and capsizement of the U.S.S. Lafayette, formerly the French liner Normandie during the Second World War. One would have thought Washington would have learned its lesson in matters of fire protection on that occasion. But not so!

On January 16 there was a fierce fire in Baltimore on the government pier, along which were moored the famed troopship George Washington and the S.S. Alexander, as told in this issue of FIRE ENGINEERING. The Washington cost originally $3 million. It would cost, today, several times as much. Pier property destroyed in the 10-alarm blaze with several other craft, totaled another $5 or $6 million.

The Alexander, part of our German war booty, was saved. The Washington was a total loss. Both vessels were manned by skeleton crews under authority of the Maritime Commission. Now we quote from the Baltimore Sun:

"Before daring to move either ship, however, Robert T. Crawford, Maritime Commission shipkeeper, felt impelled to call Washington for permission to get the ships away from the pier."

According to the press, it was more than an hour and a half before permission came through to move the 700-foot liner. And in the meantime: "Before anything was done to get out the George Washington, a section of the concrete and timber pier had broken away and slid against the old ship's bulkhead. A moment later there was a dull blast and black oily smoke billowed up from the Washington's fantail."

And that was the end of the transport we now need just as we did in World War II. Commenting on this regrettable outcome, John O'Donnell, writing in the New York Sun-Telegram, said: "In a few minutes the liner was ablaze from stem to stern. One man with an axe could have cut the hawsers and let the liner drift to safety. Red tape held it tied to a flaming death."

A stunned public, reading about this catastrophic fire loss at a time when the nation is going all-out for defense, cannot see the red tape and inefficiency through the smoke of these burning dollars. To those who judge by the headlines, the municipal fire services were to blame—firemen who never had a chance from the time of the fire alarm—men who never had a voice in creating and enforcing the regulations that permitted hazards such as this Baltimore installation to exist.

To use this seems the epitome of something or other!

Use Them!

Right now the nation can ill afford the mounting losses in strategic defense plants. It is high time that official Washington recognized the need of improved security and preventive measures against fire in *all* industrial and storage occupancies. During World War II, security measures held fire losses to a minimum—and kept sabotage within bounds. How long do we have to wait before the same security measures will be instituted in this "cold war?"

There are hundreds of alert, capable, experienced, retired municipal fire fighters in this country who could do yeoman's service in safeguarding American war defense installations against fire and sabotage. They can be had! They are waiting for the call!

Fred Sheppard

Four Chicago Firemen Killed at 5-11 Waterfront Fire

Men Caught in Collapse; Spectacular Blaze Televised to Vast Audience; Losses Exceed $1½ Million

By PAUL C. DITZEL

Editor's Note: **The author, Paul C. Ditzel, frequent writer for FIRE ENGINEERING, is correspondent for a Chicago news agency. His first-hand account of what Chicago fire fighters consider one of the city's most spectacular and tragic fires is authenticated by information supplied by the Chicago Fire Department, Fire Commissioner Michael J. Corrigan and Chief Fire Marshal Anthony J. Mullaney, to whom the editors express appreciation.**

THREE Chicago, Ill., firemen and a member of the city's Fire Insurance Patrol were killed January 12 when part of a wall collapsed during a spectacular 5-11 and three special alarm fire.

The blaze was in a four-story brick with basement building extending from 318 to 334 North LaSalle Street. The building was used for light manufacturing as well as storage and office space.

Fire Commissioner Michael J. Corrigan said damage would be in excess of $1,500,000. The Cook County assessor's office said the 1949 assessed value of the property alone was $410,698. This included $331,328 for the land and $79,370 for the building.

Occurring in mid-afternoon, the fire was witnessed by at least 200,000 spectators, who included workers in office and factory buildings in the area. The building is just north of the Loop and close by the famous Merchandise Mart, the world's largest office building.

Televised to Vast Audience

An estimated five million televiewers also saw the fire. Three of Chicago's four television stations were within camera range of it. The fourth station sent a mobile telecasting unit to the scene. Station WNBQ, a National Broadcasting Company affiliate, put the fire directly on the coaxial cable and fed pictures of the fire to audiences as far away as New York City. The National Broadcasting Company interrupted the Kate Smith TV show to telecast the fire.

The Chicago affiliate of the American Broadcasting Company, WENR-TV, fed the direct telecast over their coaxial cable for half an hour. Station WBKB, the Columbia Broadcasting System's station in Chicago, put the fire on the network for 15 minutes.

An Overhead View Shows Clouds of Smoke Billowing Up from the Warehouse That Went Up in Flames on Chicago's Near North Side on January 12, Killing Four Firemen

More people probably saw this fire than any other blaze anywhere at any time, according to Chicago television officials.

News of the fire and wide-spreading smoke caused telephone company and newspaper switchboards all over the city "to light up like Christmas trees," as one Illinois Bell Telephone Company spokesman put it.

The extra telephone load caused officials to call 400 extra operators to work. One exchange, far out on the west side, was filled with smoke from the fire. This was caused by a freak atmospheric condition which carried the smoke high and dropped it six miles away from the fire, the phone spokesman said.

Policemen summoned by Emergency Plan 5, the highest disaster order in the police department, held back thousands of spectators who lined the south bank of the Chicago River plus surrounding streets to watch firemen battle the blaze. Rush hour traffic, several hours later, was slowed as the nearly 300 policemen rerouted traffic.

Ancient Building a Hazard

The fire building was built in 1875, four years after the Great Chicago Fire. It was close by the scene of the Eastland boat disaster which killed 812 persons on July 24, 1915, when the excursion steamer capsized at its dock.

The records of Chicago Building Commissioner, Roy T. Christiansen, list the building as 57 by 160 feet. The basement of the building is used for the heating plant only, according to the records.

The building was deeper than it was wide. The long side faced on the Chicago River on the south. Other exposures included LaSalle Street on the east. LaSalle Street at this point is extremely wide and there was little danger of the fire jumping across the street to the seven-story grocery warehouse of the A. Reid Murdoch Company.

On the west, and less than 10 feet from the fire building, was a ten-story building used for light manufacturing and offices. Directly across the street from this building, located at 325 North Wells Street, is the Merchandise Mart. On the north were several railroad tracks of the Chicago and Northwestern, with an abandoned elevated structure over them.

Last March 6, an annual inspection showed all building and fire laws had been met. However, the inspector noted deep cracks in the east fire wall. The fire wall was 65 feet back from the main entrance on LaSalle Street. Later, a structural firm reported the cracks were examined by them and found not to impair the structural efficiency of the wall.

City Hall records showed that none of the tenant firms was licensed to store flammable liquids, a possible cause of the blast. The Chicago City Code requires a special license for the use and storage of flammable liquids in a building. The code restricts methods of storage and requires inspection by the fire prevention bureau before a license can be issued; and an annual inspection thereafter.

Assistant Corporation Counsel Earl Downes, the fire attorney, said he had been told the George E. Fox & Company, an office supply firm, had a quantity of naptha stored on the fourth floor where the explosion occurred.

Other building tenants were: Wells Sales, Inc., dealers in new and surplus radio supplies; Hartz Mountain Products Company, bird seed suppliers; Kaiempfer Bird Food Company; B. F. Goodrich Company; National Scale Company; Studio and Quilting Service; Acme School of Floral Designing, Inc.; Frank Ryser Company, cheese; Confection Cabinet Corporation; Williams and Meyer, a blueprint firm; C. C. Furlong, interior decorator; Gaymount Laboratories, Inc.; Super Popcorn Company, and Maddox Closet Accessories Company. The J. J. Harrington Company of 7 South Dearborn Street, Chicago, were agents for the building, which was owned by the Food Products Building Corp.

Fire Attorney Earl Downes, after conferring with several of the building's occupants, said he is convinced the explosion, which was the cause of the fatalities, was caused by an accumulation of lacquer-laden dust. Mr. Downes theorized that lacquer and lacquer thinner, used by various building tenants, had soaked into the floor and ground into dust.

He said this theory was backed up by the fact that the blasts ripped out in every direction. Building employees told Mr. Downes that lacquer thinner had been dripping from the third floor ceiling for many months.

The owner of an office furniture concern on the fourth floor, where the blast is presumed to have come from, and the president of a confectioner's cabinet company, both told Mr. Downes "the building was in filthy condition." Downes added the fire insurance rate for the building was one of the highest in Chicago.

Manuel Sterling, president of the confectioner's cabinet company, told Downes that "dust was so thick on chairs and rubbish, including waste paper and cartons, and so thick in the elevator well, that anything could have happened."

Mr. Downes said the negligible amount of lacquer thinner stored on the top floor of the four-story building could not have caused the blasts. He said the walls where the thinner was stored remained intact.

The fire attorney said investigation and testimony by building personnel pinpointed the origin of the fire to a spot near an elevator shaft on the first floor of the building on the railroad track side.

Employees told him the fire apparently had been localized. Suddenly it belched forth from the second floor. Minutes later there was an explosion on the fourth floor.

First notification of fire came from a telephone call at 2:04 p.m., January 12, 1950, to the nearby City Hall fire alarm office. The alarm office sent a still alarm assignment of one engine, a hook and ladder, a rescue squad, and a battalion chief. A fire insurance patrol followed the still alarm companies to the location. Forty-nine minutes later a 5-11 and three special alarms were in on the blaze.

Column of Smoke Rises from Five-Story Warehouse on the Chicago River Waterfront, Near the City's Teeming Loop. In the Background, One Fireboat Pours Streams of Water Into Windows, as Another Fireboat (Right, Foreground) Passes Under the Bridge

The "still" company, Engine 42, under Relief Lt. John Schuberth, who was shortly to be killed, stretched a large line. The fire was at the rear of the building and seemed to be centered on the first floor. Engine 42's line was dropped over a bridge to 25 feet below where the first floor was located.

Seventeen minutes after the still alarm, the Second Battalion Chief ordered his driver to pull nearby Box 821 at Kinzie and Wells Streets. The box alarm, transmitted at 2:21 p.m., brought three additional engines, the Fireboat Joseph Medill, another ladder company, plus a high pressure wagon, a water tower, a division marshal and another battalion chief.

Four minutes after the box alarm, a 2-11 was struck. Five more engines, the Fireboat Fred A. Busse, two ladder companies, plus another rescue squad, a high pressure wagon, a water tower, and an ambulance responded. Another four minutes passed and the 3-11 was tapping in, followed by the fourth alarm. Twelve minutes later the 5-11 alarm was pulled.

Three minutes after the 5-11 was transmitted, the first special call went out over department registers. This brought five additional pumpers. Nine minutes after the first special, a second special was struck off. Another five engines rolled. Three minutes later the third and final special alarm went out and five more pumpers turned out to the now raging fire.

Just before the 5-11 was sounded, 10 of Chicago's 12 fire ambulances were sent to the fire. With the one ambulance already on the scene from the 2-11, there were 11 of the city's 12 ambulances on hand. In addition, three more rescue squads were sent to the fire.

It was not until 7:27 p.m.—5 hours and 23 minutes after the initial still alarm—that the fire was "struck out," or declared under control.

World's Largest Commercial Building Threatened

A fairly strong wind blew smoke and flame toward the building at 325 North Wells Street and the huge Merchandise Mart, obscuring both buildings during a good part of the fire. The 325 North Wells Street building was scorched by flame and windows broken by the intense heat. Hose lines battled the fire from the sixth floor of the Wells Street building.

Wind-carried embers from the fire ignited several parts of the Merchandise Mart roof. Two engine companies, plus crews from the Mart's building staff, quickly extinguished the fires. The Mart's roof sprinklers were turned on shortly after the fire broke through the roof of the fire building.

The Mart, according to Sargent Shriver, assistant manager, has three hose lines on the roof which are always ready to back up the sprinkler system. As an added precaution, six janitors stood by with carbon-dioxide extinguishers. The Mart's 60,000 square feet of roof is fireproofed with asbestos composition and more than two inches of cork insulation.

Men Caught in Wall Collapse

The firemen who were killed were trapped under several tons of brick and debris when a section of the north wall collapsed. Just before the bricks tumbled, there was an explosion on the fourth floor. After the explosion the building was quickly enveloped in flame. Killed were Relief Lieutenant John Schuberth, 45, of Engine 42; Fireman John P. Gleason, 34, also of Engine 42; Fire-

Flames Belch Out Windows of a Building Containing Lacquer Thinning Fluid as a Fireboat Pulls Into Position During Raging Fire Just North of Downtown Loop District in Chicago, Ill., January 12.

man Henry T. Dyer, 30, of Engine 11, and Patrick Milott, 55, of Fire Insurance Patrol 5. Seven other firemen were injured, none of them seriously, in the collapse.

As the fire roared fiercely out of control and broke through the roof, a water tower was extended and played a stream on the building from the LaSalle Street side. Rescue squads also turned their turret guns on the fire. Below, along the railroad tracks, two high pressure wagons and another squad directed their turret guns at the flames which shot from all windows of the building.

Meanwhile, heavy black and alternating gray smoke ballooned from the building. Firemen to the west of the fire took a heavy smoke beating.

In the river, the Fireboat Busse tied up near the LaSalle Street bridge and directed its two front turret guns at the flames. At the opposite end of the fire building, the Fireboat Medill played two turret guns, plus a raised turret gun on the aft section, on the fire.

Both boats approached the fire building at an angle but were kept from getting close to the building because of the intense heat. At one point Fire Marshal Anthony J. Mullaney ordered them back from the fire for fear the south wall might collapse. He asked the Coast Guard to send two boats to the scene in case they might be needed for rescue work. The boats tied up across the river from the fire.

At 10:30 the night of the fire, a large portion of the south wall collapsed into the Chicago River after incessant battering b-- the two boats. The Fireboats Busse and Medill hammered at other sections of the weakened wall with high pressure streams to bring it down. A private wrecking company, hired by the city for such emergencies as this, demolished the east wall with the aid of a 50-foot derrick and a swinging 3,000-pound weight. Wreckage was piled two stories high.

Fire Commissioner Michael Corrigan, who termed the fire "the biggest I have ever seen in the downtown area," put four walkie-talkie radios into service.

Walkie-Talkie Used

One walkie-talkie was placed on each of the fireboats and directions were given them from the LaSalle Street bridge by Battalion Chief Gerald Slattery, who also had a walkie-talkie strapped to him. The fourth walkie-talkie was used on the north side of the fire where the four firemen met death.

The radios were available for use at the fire only through a coincidence. The Motorola Company, manufacturers of the nine-pound high-frequency transmitters, loaned them to the fire department earlier in the day for a test of civil defense forces in a simulated atom bomb attack on Evanston.

Fire Marshal Mullaney, who directed the test, still had the walkie-talkies with him when the fire started. Chief Mullaney kept one of the two-way radios and alternated with Chief Slattery on the bridge.

Mayor Martin H. Kennelly, who was a spectator at the fire, was impressed by the effective use of walkie-talkies at the disaster. He said the city would consider buying some for both the fire and police departments. The hand-operated radios were put into use at this fire for the first time since the LaSalle hotel fire which killed 62 persons in June, 1946.

One-Fourth of Fire Department in Operation

Sixty-nine pieces of fire apparatus responded to the fire. This figure represents one-fourth of the city's fire equipment. It was manned by 283 firemen, commanded by Commissioner Corrigan. Included in the battle were 34 engines, 5 ladder companies, 6 squads, 2 high pressure wagons, 2 water towers, 11 ambulances, 1 division marshal, 4 battalion chiefs, 2 light wagons, and 2 gasoline wagons. The night following the fire, more than 24 hours later, several pieces of equipment were pouring water into the still smoldering ruins.

In addition to the equipment at the fire, 16 engines, 3 ladder companies, and 1 battalion chief changed quarters and moved into the large high value district which was stripped of its normal fire protection.

The Cicero, Lockport, and Elmwood Park fire departments telephoned the City Hall fire alarm office and volunteered aid. Similar offers were made by various veterans groups.

A Salvation Army emergency canteen rolled to the fire shortly after the 2-11 alarm and served hot coffee and doughnuts to firemen and police during the fire and throughout the night and into the next morning during mop-up operations.

The fire was the fire department's grimmest tragedy since 1943 and one of the worst in the past 15 years. Records of the Firemen's Annuity and Benefit Fund revealed that 61 Chicago firemen died in the line of duty since 1935. In 1943, the last time the department suffered a high loss of life, eight firemen were killed. They were trapped, July 9, under flaming debris when the roofs and floors caved in at a multi-alarm fire at 419 West Superior Street on the near north side and not far from the most recent tragedy.

Underneath Chicago's Loop and mercantile district runs a 60-mile network of underground railroad tunnels operated by the Chicago Tunnel Terminal Company. This subway was completely shut down because of smoke and water from the fire which flooded the system. The terminal company had an outlet in the burned building.

Water in some places reached six feet deep. Smoke from the fire worked its way along the tunnel and entered the 25 downtown buildings which use cool air from the tunnels for ventilation. Blowers were used to clear smoke from the tunnels after the fire had been extinguished.

Following is a resume of alarms:

Chronology of Alarms and Response

2:04 p.m.—(Jan. 12, 1951) — Telephone alarm, Fire at 320 North LaSalle Street, Engine 42, Ladder 9, Squad 1, BC 2, via loudspeaker alarm. Fire Insurance Patrol followed companies to location.

2:21 p.m.—Box 821, Kinzie & Wells Sts. Engines 11, 13, 40, Fireboat Medill, Ladder 3, High Pressure 2, Water Tower 2, Division Marshal 1, BC 1.

2:25 p.m.—Box 821, 2-11. Engines 3, 14, 17, 27, 98, Fireboat Fred A. Busse; Ladders 2, 6; Squad 2; High Pressure 1, Water Tower 1, Ambulance 1, BC 25. Light Wagon 1. Companies automatically changed: Engines 9-13, 24-3, 103-40, 106-98, 111-14, Ladders 7-3, 31-6. BC 8-1.

2:29 p.m.—Box 821, 3-11. Engines 1, 4, 5, 21, 34. Ladder 1, Squad 10. BC 6. Light Wagon 2. Companies changing: Engines 2-1; 39-5, 109-34, 128-4. Ladder 14-1.

2:37 p.m.—Box 821, 4-11. Engines 6, 12, 20, 22, 104. Companies changing: Engines 48-104, 77-12, 79-27.

2:38 p.m.—Box 821, 5-11. Engines 8, 26, 30, 33, 44. Companies changing: 52-8, 67-24, 89-33, 114-30.

2:39 p.m.—Special call. Ten fire ambulances to fire.

2:40 p.m.—Special call. Squads 6, 7, 11, to fire.

2:41 p.m.—First Special Alarm. Engines 24, 48, 103, 106, 111.

2:50 p.m.—Second Special Alarm. Engines 23, 43, 57, 67, 105.

2:52 p.m.—Third Special Alarm Engines 19, 77, 89, 114, 128.

7:27 p.m.—Fire at 320 North LaSalle Street "struck out" by orders of Fire Commissioner Corrigan.

Minus 53-Degree Fire Fighting!

One man burned to death and firemen took gruelling punishment, as four fires and 53-degree-below-zero temperatures struck Fairbanks, Alaska, late in January.

The fires broke out almost simultaneously only two days after a $500,000 blaze had destroyed three downtown business houses. The victim perished in one of the fires that destroyed a 2-story log boarding house.

New Records Established By Twenty-Third F.D.I.C.

A STAFF REPORT

THE Twenty-Third Annual Fire Department Instructors Conference at Memphis, Tenn., lived up to the reputation of its predecessors, and to the hopes of its adherents. The attendance, well over 900, and the heavy business program undertaken during four days, almost without interruption, attests the fact.

Registrants this year came from 38 states, the District of Columbia and Canada, to join in the Conference, which is sponsored jointly by the Fire Prevention Department of the Western Actuarial Bureau and the Fire Department of the City of Memphis, of which John C. Klinck is chief.

High spotting this year's Conference were the panel discussions on such subjects as civil defense, "Bugs in Fire Fighting," keeping apparatus rolling, and numerous quiz sessions participated in by leaders in the fire service.

This year there was an increase in audience participation, and in visual instruction. This year, also, the four luncheon sessions, in the jam packed huge convention auditorium, went like clockwork, with the uniformed members of the Memphis Fire Department "dishing it out." And this year, these luncheons were addressed by prominent figures in or related to the fire service—James E. Jagger, General Manager, International Association of Fire Chiefs; E. C. Howard, Supervisor of Plant Protection, Firestone Tire & Rubber Company, Memphis; Fred W. Heisler, Institute of Technology, Oklahoma A. & M. College. On the fourth day an entertainment was staged by members of the Memphis Fire Department.

The program got off on the dot—as is characteristic of the split-second timing of Chairman Dick Vernor, backed by his capable and efficient aides, Emmet T. Cox, vice-chairman; Harry T. Wolff, secretary; J. E. Barman, asst.-sec'y., Missouri Inspection Bureau; Wm. R. Ford, who handled publicity, and Lew F. Holland, jack-of-all trades, who was responsible for much of the "scenery." The Hon. Watkins Overton, Memphis Mayor; Fire Chief John C. Klinck, Memphis Fire Department; Joe N. Pless, President, Memphis & Shelby County Council of Civic Clubs, and A. P. Mills, Chairman, Fire Prevention Committee, Memphis Chamber of Commerce, welcomed the delegates in true Southern style.

Robert F. Hamm, Director, Firemen's Training, Indiana Rating Bureau, who at other times is an ordained minister, led the speaking talent with his topic "Setting the Stage." He briefed the registrants on the historical and factual background of the FDIC and primed them for what was to come.

The first panel in the program, led by Chief Roi B. Woolley, Assistant Editorial Director of FIRE ENGINEERING, was participated in by Fire Chief Jack Gale of Seminole, Okla.; Chief Chris Williams, Cincinnati Salvage Corps and Fire Chief Lloyd Layman of Parkersburg, W. Va. It had for its topic "Bugs in the Fire Service." Although the panel leader and participating "entomologists" had some difficulty digging out "bugs" in the fire service, Chief Gale found one or two in forcible entry operations; Chief Williams, searched for some in salvage and overhauling, and Chief Layman brought down the house with his theory on how to start bigger and better fires—to illustrate "bugs" in ventilation.

The small, paid fire department had its deserved place in the sun when Joe I. Fetters, Asst. State Supervisor, Trade & Industrial Education, Lincoln, Neb., told how these organizations were meeting their problems of money, manpower, leadership, sub-standard apparatus, etc. Lukewarm officials, poor training, inadequate mutual aid and the stumbling block of precedent were handicaps they were striving to overcome.

Speaker at the day's luncheon, J. E. Jagger of the I. A. F. C., was introduced by W. Art Ross, U. S. Department of Education, another stalwart of the Conference. Mr. Jagger reminded the 500 and more that today fire fighting is truly Big Business.

Former New York Fire Chief, Harold Burke, now with C.O. Two Fire Equipment Co., opened the afternoon's session with a description on photo-electric smoke detectors, light blocking and light reflecting, which when properly designed and installed remove the chance and uncertainty of fire detection, and which today are available at moderate cost.

Art. B. Guise, Ansul Chemical Company, as did Chief Burke, gave the delegates a fascinating message without once accenting his firm and its products. His paper dwelt with the complete history of the development of dry chemical extinguishers, his address being illustrated with slides and motion pictures.

"Color in Fire Prevention" was the subject discussed by Wm. G. Schultz, Chief Engineer Lumbermen's Mutual Ins. Co., Mansfield, O. He dwelt on the use of color for exaggeration and emphasis and emphasized the important factors of effective fire prevention campaigning.

R. V. Fitzpatrick, Industrial Department, Mine Safety Appliances Co., had as his topic "You Bet Your Life." He reminded his audience how a fireman gambles with his life when he tries to fight smoke and gases, and lack of air, without proper respiratory protective apparatus. "The wearing of boots, helmets and rubber coats won't protect your lungs," he said, and he warned: "Put masks on faces, not on trucks."

Promptly at 9:00 a.m. on the 10th, Chairman Dick Vernor introduced Rabbi James A. Wax, of Temple Israel, who gave the invocation. He was followed by the "Quiz Kids," master-minded by State Fire Marshal Martin of Kentucky, who had in his "gang": H. R. Bogardus, Chief Engineer, Fire Insurance Organization of Newark, N. J.; J. Howard Bush, Chief, Plant Protection, Caterpiller Tractor Co., Peoria, Ill.; Wm. H. Higgins, Asst. Chief, St. Joseph, Mo.; Wm. A. Morris, Fire Training Instructor, Oklahoma A. & M.; Arthur P. Spottswood, Supt. of Instruction, Minneapolis Fire Department, and Fred J. Wells, Fire Chief, Fargo, N. D.

The topics aired by the "Kids" included: speed of apparatus; educating the public during dry-grass season; cooperation between municipal and private plant brigades; use of breathing apparatus; the need of volunteer fire departments.

Hard on their heels, came Warren Y. Kimball, Editor, Fireman, N. F. P. A., who summed up the program of the previous day.

Horatio Bond, Chief Engineer, National Fire Protection Association, the next speaker, conducted a symposium on "Civil Defense Today," which was participated in by John H. Arnold, Asst. Chief Engineer, N. B. F. U., Chicago; Francis L. Brannigan, U. S. Atomic Energy Commission; Kyle P. Laughlin, Civil Defense Office, N. S. R. B., Washington, and Chas. R. Scott, Chief,

Photo by Hubert Walker

Chairman Richard (Dick) Vernor, Center, Flanked by Fire Chief John C. Klinck, on His Left, Host to the Conference, and Minnesota Fire Marshal Leonard Lund on His Right, Await the Arrival of Fried Chicken, Cooked and Served by Members of the Memphis Fire Department

Fire Prevention Bureau, Div. of State Fire Marshal, Columbus, O. They were aided by many in the audience.

A. H. Gent, Chief Engineer, Illinois Inspection Bureau, Chicago, led off the afternoon's program with an illustrated lecture on the use of modern methods in promoting fire prevention and protection under the somewhat deceptive caption "Curves and Figures." The "scenery" was by Lew Holland.

Photo by Hubert Walker

Chairman "Dick" Vernor, Standing at Lectern, Leads Applause Following Address by Guest Speaker

"Radiological Monitoring Problems," the paper delivered by Prof. John J. Ahern, Dir., Dept. of Fire Protection & Safety Engineering, Illinois Institute of Technology, emphasized the fire department as the first line of defense; the way its handles its job, he said, sets a pattern for the rest of civil defense. Prof. Ahern believes reasonable protection against radiological hazards can be provided and there should be no reluctance on the part of monitoring groups to let firemen do some of this work. Some training in monitoring should be given selected fire department personnel, he contended.

Dennis C. Smith, Chairman Ag. Com., National Fire Waste Council, Chicago, told about the new contest for rural fire departments, and Norman H. Davis, Jr., Assistant Secretary, Underwriters Laboratories, Inc., Chicago, discussed wetting agents. He was followed by Robert (Bob) C. Byrus, Fire Protection Engineer, Iowa State College, Ames, Ia., with a meaty, hard hitting paper on "Increasing Efficiency of Volunteer Fire Departments." Byrus stressed the need of greater knowledge of fire fighting, pointing out that the problems facing the volunteer today are altogether different from those of the full-time paid fire fighter. Vamps deserve a pat on the back when doing a good job, he said. State instructors must be more than just traveling entertainers, he concluded.

Thursday's sessions got off to a swift start with a "hot" program of the "Quiz Kids." The morning panel included W. A. Seeley, State Supervisor, T. & I. Education, Nashville, Tenn. (leader); W. G. Allen, District Engineer, S. E. U. A. Raleigh, N. C.; Captain C. B. Arnold, Akron, O., Fire Department; W. H. Barnett, Coordinator, Fire Service Training, Ocala, Fla.; Chief C. A. Crosier, Battle Creek, Mich.; Chief R. J. Myers, Forrest City, Ark., and I. F. Statz, Supervisor, Fire Prevention Wisconsin Industrial Commission.

Thomas S. Ward, Supervisor of Fire Training, California Commission on Vocational Education, summed up the Wednesday's sessions, after which Chief Lester Schick, Davenport, Ia., Fire Department, related his first hand story of the tragic Davenport Hospital fire. Hospital Fire Safety was also the topic of the next speaker, Roy Hudenburg, Secretary, Council on Hospital Planning and Plant Operation, American Hospital Association, Chicago.

A most effective and dramatic demonstration lecture on the "Burning Characteristics of Building Materials" was delivered by A. J. Steiner, Engineer, Protection Dept., Underwriters Laboratories, Inc., Chicago. Mr. Steiner, using a lapel mike, which incidentally was later presented the F. D. I. C. by the Laboratories, showed comparative burning characteristics of different woods and explained how, for the first time, building materials can be given actual burning tests during which the smoke and other by-products may be sampled and analyzed on a representative scale.

R. S. Moulton, Technical Secretary, N. F. P. A., spoke on the "Value of N. F. P. A. Standards to the Fire Service," after which luncheon was served by the Memphis Fire Department.

The afternoon session opened with an interesting and dramatic talk on "Modern Plastics and Fibers" by Vernon S. Peterson, Manager, Midwest District, Extension Division, E. I. DuPont de Nemours & Co., Wilmington, Del. Bob Byrus acted as "stooge" for the burning demonstrations, with fire extinguishers closeby.

Three talks, under the title "Town Hall," were given by volunteer speakers, including Captain Day, who urged this is the time to prepare for arson; Ray Bond, who explained N. F. P. A. training publications, and Keith Royer who told about extinguishing a gasoline fire.

"Use and Abuse of the Big Stick," the illustrated paper ably presented by Hubert Walker, Manager, Sales, Engineering Dept., American LaFrance-Foamite Corp. Elmira, N. Y., is reproduced in this issue of FIRE ENGINEERING as a happy addition to the series of chapters on ladders and ladder evolutions.

A "dramatic presentation" entitled "Municipal Cooperation," written and directed by James Just, Director Fire Service Extension, University of Maryland, College Park, Md., emphasized in humorous fashion some of the problems confronting fire departments.

This year the Conference renewed an old practice of conducting certain evolutions at the Memphis Fire Department drill ground. Joe Fetters directed the demonstrations, which showed new types of fire nozzles. Warren Kimball of N. F. P. A., covered some of the problems of relaying water.

The final day's sessions gave delegates their last chance at the "experts" on a quiz program. Russel D. Salak, Secretary-Treasurer, Nebraska State Volunteer Firemen's Association, Schuyler, Neb., led discussions which were participated in by Captain A. H. Anthony, Jr., Drillmaster, Petersburg, Va.; W. H. Briede, III, Assistant Municipal Engineer, La. Rating & Fire Prevention Bureau, New Orleans, La.; D. E. Barrett, Assistant Director, Fire Training, Ontario Fire Marshal's Office, Toronto; F. Lee Cockey, Deputy Chief, Baltimore County Fire Department; George F. Prince, Sup. of Fire & Safety, Koppers Company, Inc., Chemical Div., Kotuba, Pa., and Chief D. Floyd Waller, Gulfport, Miss.

George Harper, Director, Illinois Fire College, Urbana, Ill., briefly summed up the preceding day's program, after which Chief Homer Harpole, Clinton, Ky., took for his topic: "Hell's A 'Poppin.'"

Chief Harpole was followed by a panel which discussed the subject "Keep Them Rolling." The discussion was led by A. L. P. Schmeichel, Engineer, W. Va. Inspection Bureau, Charleston and was devoted to the ways and means of keeping apparatus fit for the job. Others on the panel were Herbert S. Foster, Chief Mechanic, Fort Wayne, Ind., Fire Dept.; Chief O. E. Hirst, Galena, Ill., Fire Dept. and Roy R. Simmons, Chief Training Officer, Dallas Fire Dept.

Four ten-minute volunteer speakers, filled 40 minutes with pertinent and instructive discussions on problems affecting the fire service, after which Edgar A. Spotz, Adviser, Fire Service Training, Public Service Institute, Department of Public Instruction, State of Pennsylvania discussed the "New Trends in Training."

After the luncheon, which was enlivened by the Memphis Fire Department's own inimitable brand of "Annual F. D. I. C. Follies," H. W. Muhlmann, Parkersburg, W. Va., fire photographer told about his organization's use of the camera in today's fire fighting, fire prevention and training.

R. J. Douglas, Asso. Prof. of Fire Protection, A. & M. College, talked about "The Gremlins in Visual Education" pointing out what's been wrong, and some things that should be done to improve training. Two well informed speakers then discussed fog and wetting agents. Chief Richard G. Houren, Marshfield, Wis., Fire Dept. told about his department's use of water fog, and Chief Henry Chase, Miami Fire Dept., explained his organization's successful use of wet water.

A short movie of the atom bomb at work followed, and then came the "Annual Broadcast—Station 'F. D. I. C.'" by Col. H. R. Brayton, Director, Firemen's Training, A. & M. College, Texas, which fittingly summed up and concluded the Conference's busy program.

Detroit's Fire Commission Head Gives Department Third Gift

Detroit's Fire Commisison President, Paxton Mendelssohn, whose interest in the fire service and the Detroit Fire Department is of many years duration, and who previously presented that department with two ambulances, recently announced another gift. He told members of the commission he is donating $18,000 to modernize the ambulance currently used for injured fire fighters. This is about what the vehicle cost 14 years ago, when new, it is revealed.

His first ambulance was given in 1927. The second, which is to be remodeled, was donated in 1937. The work will be done by Ray Dietrick, Inc., of Grand Rapids, Mich. Rehabilitation will include new motor with hydromatic transmission; shortening of frame and wheel base; new axles and brakes; new front end and doors; new steering gear and instrument board and refinishing of the interior and body.

Fire Service Ladders and Their Use—Part X

The Use and Abuse of the Big Stick

By HUBERT WALKER

Editor's Note: **This, the tenth in the series of chapters dealing with fire department ladders, ladder evolutions, ladder use and preventive maintenance, as its title suggests, is devoted to operation, testing and maintenance of the aerial ladder, termed in fire department nomenclature "the big stick."**

This text and the illustrations are taken from the illustrated address under the same caption given by Hubert Walker, Manager, MFA Sales Engineering Department, American-LaFrance-Foamite Corporation, Elmira, N. Y., before the twenty-third annual Fire Department Instructors' Conference in Memphis, Tenn., on Thursday, January 11, 1951. Mr. Walker's instructive and helpful lecture was so timely and fitted so nicely into the series of installments on ladders, ladder use and care, written by Roi B. Woolley and being published serially in this journal, that requests to include Mr. Walker's message in this series as a part of the record, were made of Richard E. Vernor, Chairman, Fire Department Instructors' Conference, and Mr. Walker himself.

The editors gratefully acknowledge the cooperation of these gentlemen in granting permission to so include this F. D. I. C. paper as a part of FIRE ENGINEERING's treatise.

Readers may desire to review this chapter in the light of two previous installments devoted to aerial ladders, namely, Chapters VII and VIII published in the November and December, 1950, issues under the title "Technique of Testing Fire Department Ladders (Aerial)."

Mr. Walker is one of the nation's foremost engineers of fire apparatus and his unprejudiced, unselfish observations we believe to be a distinct contribution to the fundamental literature of the fire service.

Because of its length and the publisher's desire not to omit any text or pictures of Mr. Walker's educational address it is necessary to publish it in two installments, of which this, Chapter X is the first. The second part will follow in March.

FIRE DEPARTMENT instructors charged with the responsibility of training firemen in the operation and use of aerial ladders have had little factual data to guide them. The situation can be likened to the condition existing in the early days of aircraft use when the pilot flew without instruments, "By the seat of his pants." This means the pilot used his best judgment and, in the fire service, instructors and operators have also had to mainly rely on personal judgment for the safe operation of the aerial ladder.

Even though aerial ladders have been used by the fire service for a period of over eighty years, no standards of load rating or operation have been established. Each manufacturer has built aerial ladders to his own design. A fire department buys an aerial ladder of 65', 75', 85' or 100' length, but it has not been given complete data on the load that can be carried under all conditions of operation. Pumpers are bought to a performance standard of capacity rating in G.P.M., plus a specification for the pressure at which this capacity must be obtained. Aerial ladders should be rated on some comparable basis. Fortunately, the fire service has operated the aerial ladders within the load limits in most cases. It is the instances of overloading and abuse that prompted the request for more data.

Before any discussion of the use of the aerial ladder can be undertaken, let us briefly review some of the fundamental factors that must be considered and recognized as limiting the use or loading of an aerial ladder.

No Stronger Than Its Trussing

First: The main or lower rail of any aerial ladder, 55 feet or longer, will not support a load, and in most cases will not support its own weight, without trussing. This applies to the butt section of all wood aerial ladders, and to all sections of metal aerial ladders.

This can be re-stated in a shorter phrase that you should never forget: an aerial ladder is no stronger than its trussing.

On a wood aerial ladder, the trussing is designed to carry its load and has a maximum of strength when the trussing is in tension. It has been good practice for 80 years to place the end of the aerial ladder about 6" to 12" from the part of the building on which it is to rest. The weight of firemen or hose lines will cause ladder deflections to rest the end on a window sill or roof, which load and position places the trussing in tension for maximum support and strength.

When the wood aerial ladder is placed against a building before men ascend the ladder, the weight of the men places the main beams in bending and tension, the trussing in compression. The trussing has very little or no load carrying ability under these conditions and the safe load capacity of the ladder is sharply reduced. Its load capacity depends entirely on the angle of the ladder and the length extended.

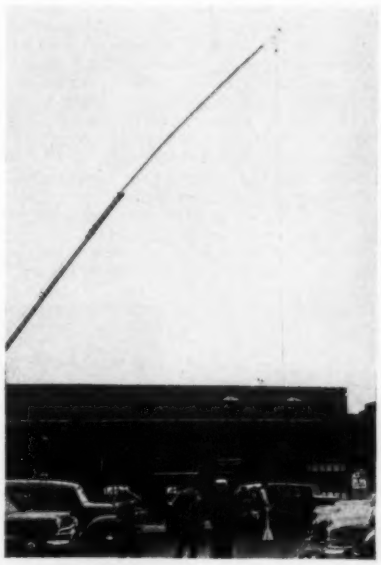


Figure 2

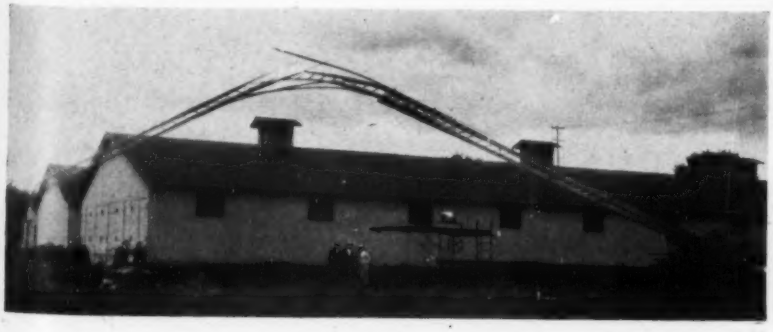
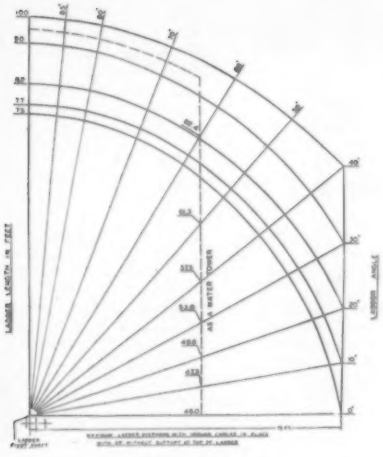


Figure 1



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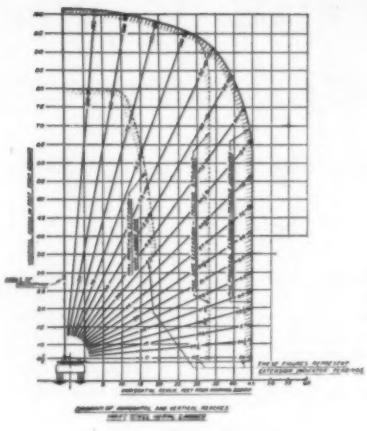

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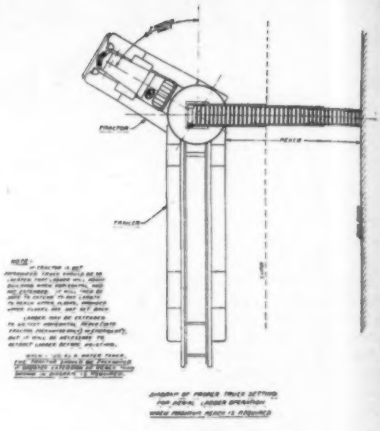


Figure 5

Metal aerial ladders have almost equal strength with the trussing in tension or compression, so the metal aerial can be lowered to rest on a window sill or roof with perfect safety.

Second: The aerial ladder operates on a hinge pin or shaft, which permits only vertical movement. To enable ladder movement for use in other positions than in line with the truck, a turntable is provided with the lower end of the ladder supported by this turntable. The larger the diameter of this turntable, the greater the ladder stability and lesser load on the turntable bearing surfaces. Turntable diameters vary greatly with different manufacturers, one being 36" diameter, one 42" diameter, one 56" diameter, and one 65" diameter.

When a ladder is resting on a building, there is little load on the turntable except static weight of the ladder and operating mechanism.

In a cantilever position, that is, with the upper end of the ladder unsupported, the loading on the turntable is a maximum. Most fire department aerial ladder use is under cantilever conditions.

One fire department recently visited was asked how the aerial performed. The reply was interesting. "We have had it over a year, but have not used it on a fire. We train one day a week; take cats out of trees; put up all the city's Christmas season decorations, and will take them down; put ropes in the schools' flag poles, and hang the Community Chest banners."

While these activities are perhaps good public relations, the important job is still fire fighting.

Supports Must Be Stable

The increasing use of the aerial ladder as a water tower involves the use of the aerial ladder in a cantilever position. This brings us to the third factor in aerial ladder operation that must always be the concern of the men in charge of operation—stability of the supporting structure.

The ladder is securely attached to the turntable, which in turn is attached to the chassis frame. When aerial ladders weighing from 900 pounds to 2,200 pounds are moved in an arc to a position at right angles to the truck, we immediately add load to the chassis springs on the side of ladder movement and the increased weight also adds a load on the tires to cause additional tire deflection. As you learned in high school physics—"For every action, there is an equal and opposite reaction," and we have an equal lightening of the load on the opposite springs and tires which increases the roll or torque action on the chassis. Any vertical movement of the ladder under these conditions produces a whipping action in the ladder that may be dangerous.

The required stability is provided by ground jacks whose function is to support the ladder weight without transfer

Figure 6

Figure 7

Figure 8

of load to either springs or tires.

It is obvious that as the spread between the jacks increases, the greater is the stability, and less will be the unit pressure under the jacks.

Some different designs of jack arrangements are provided the fire service.

Types of Ground Jacks

On 4-wheel aerials, two types are available. One hydraulic with jacks spaced 84" apart as measured across the chassis. A second is the use of mechanical type jacks with spread up to 145".

On tractor drawn aerial trucks there are three designs. One with four mechanical jacks for complete ladder support; a second design provides one pair of ground jacks used in combination with jackknifing the tractor to give maximum ladder stability and load capacity. This takes part of the load moment through the fifth wheel which connects the tractor to the trailer chassis. Axle jacks are provided between the tractor rear axle and the tractor chassis frame to eliminate rear spring deflection.

The third design utilizes no ground jacks, but requires jackknifing the tractor and the use of axle jacks on the tractor.

Manufacturers have tested their aerial ladders and they will safely carry the maximum recommended load at angles and extended lengths under the recommended conditions of ground jack use.

The fire department instructor knows all this—or does he? All manuals I have seen would indicate full data to be top secret information known only to the manufacturers' engineers.

One manufacturer does place an automatic indicator in front of the operator that registers recommended maximum load at all angles, and any extension for three conditions of service, that is—top of the ladder supported, top unsupported, and as a water tower.

Wood aerial ladders have a load limit as established by the ladder design. In most cases the ground jacks will support a greater load than can be carried safely by the ladder.

Figure 9

In a cantilever position, the wood aerial ladder will carry one man at the outer end, full fly extension, at an angle of 30° or more. The ladder must be in good condition, however, to be safe for this load. Full test data on both wood and metal aerials has been given in a series of articles published this past year in FIRE ENGINEERING. If you have any doubts about your aerial ladder, we suggest that you review this series of articles or write the manufacturer.

Figure 1 shows a wood aerial ladder being tested to destruction. Note the butt ladder stays straight due to the trussing, all the deflection under load is in the fly ladder.

Figure 2 shows a wood aerial ladder under test by a fire department.

The load carrying capacity of the all metal aerial exceeds the load capacity of the wood aerial ladder. The strength increase depending on the manufacturers design and material used.

Figure 3 shows the maximum safe extension of one make of metal aerial at various angles and under two service conditions; one, as a cantilever only, and second, for water tower use. What you are not told is how many men can be on the ladder. The load is five men in cantilever position, two on the top section and three men approximately spaced equal for the rest of the ladder.

When the ladder is being used as a water tower, the load is one man at the top, plus a ladder pipe (1,100 g.p.m. capacity) and a charged 3" hose line.

Figure 4 shows another make of 100-foot all metal ladder. The load rating on this ladder is for three men—one man on each section of the ladder. Note the difference in ladder extension permissible, depending on whether the tractor is jackknifed or straight ahead.

Figure 5 shows the tractor position required when the maximum load capacity of the aerial ladder is required. Street conditions do not always permit the jackknifing and it is then of utmost importance that the ladder operator know the ladder load limitations. Several fire departments have learned the hard way that basic stability is a factor in safe aerial ladder usage.

If the tractor is not jackknifed truck should be so located that ladder will reach building when horizontal and not extended. It will then be safe to extend to any length to reach upper floors, provided upper floors are not set back.

Ladder may be extended to 60 feet horizontal reach (with tractor jackknifed only) in emergency, but it will be necessary to retract ladder before hoisting.

Figure 10

Figure 11

Figure 12

Figure 13

When used as a water tower, the tractor should be jackknifed, if greater extension or reach than shown in diagram is required.

More Details on Testing

The testing of aerial ladders is an important requirement. First, by the manufacturer to be sure it will meet his idea of fire service requirements; second, by the fire department to be sure the ladder is in safe condition for service use.

Figure 6 shows an all metal 100-foot aerial ladder being tested with progressively increased load until failure occurs. The test load in this photo was 3,100 pounds plus the weight of a 3" charged line, or a total of 3,500 pounds. Note how square and straight the ladder remains under load.

Figure 7 shows the same ladder under 3,600 pounds total load.

And Figure 8 shows the same ladder at the moment of failure under added load.

Figure 9 shows another 100-foot ladder being tested under conditions of supporting the top end of the ladder. The strength of the ladder is greater in this position than in the cantilever position.

This ladder is recommended for safe maximum load of eight men when the top is supported, as compared to five men for the same angle at full extension in cantilever position.

The lateral or side loading strength of an aerial ladder is not as great as top loading. Generally the greatest chance for ladder damage from improper handling or use is side or lateral overloading.

Figures 10, 11, 12 and 13 show progressive ladder deflection under load applied at the tip from nozzle reaction as the pressure is increased. These views are from a series of tests conducted several years ago when changes were made to give increased lateral strength.

Another School "Closed" by Fire

The Front Street School, East Meadow, L. I., was gutted by fire on the evening of Dec. 5th with loss of some $150,000.

The alarm registered at the fire house, a few hundred feet from the school, at 6:55 P.M., where voters of the fire district were balloting at the annual election. First fire crews were able to enter the structure but were soon driven out whereupon additional engine companies were called from Uniondale and N. Bellmore.

The fire ate its way upward and about 8:30 P.M. aerial ladders were called from Wantagh and Hempstead, as it was feared the walls might not support ground ladders.

After seven hours' work by some twenty pieces of apparatus the fire was under control. It is believed the blaze started in or near the oil burning heating plant.

The building, of brick and stone construction with wooden interior, is 2½ stories high, housed 630 pupils and was about 43 years old. Currently it was on double session pending completion of a $1,000,000 expansion program.

The wind at the time of the fire was "fresh," NNW, temperature 40 degrees F.

JAMES H. FAIRBROTHER

DETROIT FIRE LOSSES REDUCED BY OPERATIONAL IMPROVEMENTS

Addition of Two-Way Radio a Factor in Cutting Losses by Twenty-six Per Cent

By Joseph A. Kleefus

TENTATIVE but reliable figures just released, point to the year 1950 as an unusual one for the Detroit Fire Department. Only 23 extra alarms were recorded, 11 less than in 1949. Of these, 18 were of second alarm proportions, and only 5 reached the the three alarm stage. According to the veteran fire alarm operator, Emmet (Duke) Dueweke, who delved into the department records, this was the first year since 1928 that no four or five alarm fires were logged at Central Fire Alarm Headquarters.

This enviable record was, of course, reflected in the fire loss for the year. The fire loss for 1950 was set at $4,724,-246 a decline of $1,728,179, or better than 26%. The loss amounted to $2.57 per capita, as compared with the 1949 figure of $3.06. It was the second straight year that the fire loss showed a decline. No fire in 1950 caused more than $200,000 damage.

Credit for this fine record must, of course, be shared among a number of department bureaus. Basically, no one agency can be cited as more important than the rest. Essentially the excellent record is one resulting from close integration and teamwork among all branches of the fire service. It would be well to note, however, some developments during the past year that without doubt help to explain the banner year the department enjoyed.

The Fire Prevention Bureau has increasingly emphasized an inspection program implemented by both its own staff and the fire officers on duty in the fire stations. The effectiveness of fire prevention cannot be overestimated in the over-all picture. In addition, the bureau's excellent public relations program extending to all sections of the city's population, including the schools, is certainly paying big dividends.

Undoubtedly a great deal of credit must be given to the increased efficiency of the fire-fighting forces. This increased efficiency is a likely result of the expanded in-service training program of the department. Also, the year 1950 found the department's modernization program well along. Several new 1,000 gallon pumpers were placed in service, together with a number of new 65 foot aerial ladder trucks equipped with high pressure fog units.

Further, the Fire Department's radio system is now a well established institution within the department and has proven its value in many ways. Not only has it increased the mobility of the available companies but it has increased the efficiency of the entire communications system. And not to be overlooked is the profound psychological effect of knowing that help can be summoned in an instant.

At this writing, 38 of the department's 52 Engine Companies are in two-way radio service and 27 of the 31 Ladder Companies are similarly equipped.

A number of other interesting details can be given at this time that are only indirectly related to the outstanding record achieved during 1950. Only one serious accident, involving Ladder Company No. 1 and a Detroit Street Railway's Woodward Avenue Street Car, marred an otherwise good accident record. The 100 foot aerial was badly damaged and several firemen were hospitalized.

There was no loss of life among the fire-fighting personnel during the year 1950.

A new Engine Company, No. 30, will be placed in service shortly to protect the rapidly growing northwestern section of the city. During the year, Engine Company No. 15 was discontinued and Engine Company No. 7 was relocated in the quarters of Engine Company No. 19, previously taken out of service.

The Fire Alarm Office has been busy revising its running cards during the past year. This program should be brought to an end during 1951.

The usual interesting stories always associated with the fire service found expression during the year. The members of Engine Company No. 12 had a fire delivered right to their quarters in the form of a load of sawdust. Rescue Company No. 4 responding to the vague call of a woman in distress, delivered a healthy baby. And a doctor friend of the writer, making a professional call, was drafted into fire-fighting when the residence took fire while he was treating the patient.

New York Needs $65,384,404 for World's Largest Fire Force

Fire Commissioner George P. Monaghan, whose impact on the New York Fire Department since assuming office has been felt in many ways, has asked for a record outlay for the department for 1951-52.

Declaring that his department is undermanned, Mr. Monaghan asked for 500 more firemen and 146 new civilian employes. Bearing out Fire Chief Peter Loftus's contention that a large proportion of the department's apparatus is over age, the Commissioner has requested in addition to other improvements, fifty-five additional pumpers, twelve ladder trucks, fifty hose wagons and thirty-five chiefs' cars.

Also, $331,455 is asked for new hose. It is revealed that 500,000 feet of hose has been in service in the department more than eight years.

Commissioner Monaghan estimated the department's need for 1951-52 at $65,384,404, which would be $5,657,831 above current allocations.

COSTLY BALTIMORE FIRE RAZES HUGE PIER AND TROOPSHIP

Ten-Alarm Fire Fought Under Handicaps; Loss Estimated at $15 Million

A Staff Report*

SEVEN agencies, four of them Federal, are probing into the cause of what is reported as the second worst fire in point of destructiveness ever to strike the city of Baltimore. Only the great fire of February 4, 1904, wrought greater damage than this recent holocaust, which destroyed the Hawkins Point ammunition pier, the 25,000-ton troop transport George Washington and damaged other craft, with total loss estimated at over $15 million.

A Fireboat (Left) Pours Water Into a Blazing Transport as a Raging Baltimore Fire Engulfs the Hawkins Point Pier and Several Vessels. The Pier and the Army Transport George Washington Were Destroyed

As in the case of the S.S. Lafayette, formerly the French liner Normandie, which burned and capsized at her pier early in World War II, this latest loss gets the nation's war defense off to a poor start.

Investigating agents, including the FBI, attach importance to the theory that the fire was started by an improvised stove, a 55-gallon drum, its top cut off and holes bored in the bottom which workmen on outdoor jobs customarily use to warm themselves. Agents found the drum about 100 yards off the pier, near where the blaze is believed to have originated.

In addition to the FBI, the destructive blaze is being investigated by the Army, the Coast Guard, the Maritime Commission, the police and fire departments and the National Board of Fire Underwriters.

The property involved included the 1,000-foot pier constructed during the last war to facilitate loading of ammunition warehoused at the Army's ordnance depot, the 42-year-old historic troopship George Washington, two barges, a tug, and a pile driver. A second troopship, the old Amerika, renamed the Edmund B. Alexander, which was moored at the pier with the Washington, was cut adrift from the burning pier in time to be saved.

The piles and underpinning of the pier, built at a cost of $5 million, were highly combustible and, once ignited, blazed freely under the concrete and asphalt topping. The pier juts into the lower end of Baltimore Harbor, near Fort Armistead Park and recently was leased to the Merritt, Chapman & Scott wrecking concern, subcontractors and owners of the smaller craft burned in the fire. Their loss was estimated at $300,000. The two transports, guarded by only skeleton maintenance crews, were moored on opposite sides of the dock at its outer end.

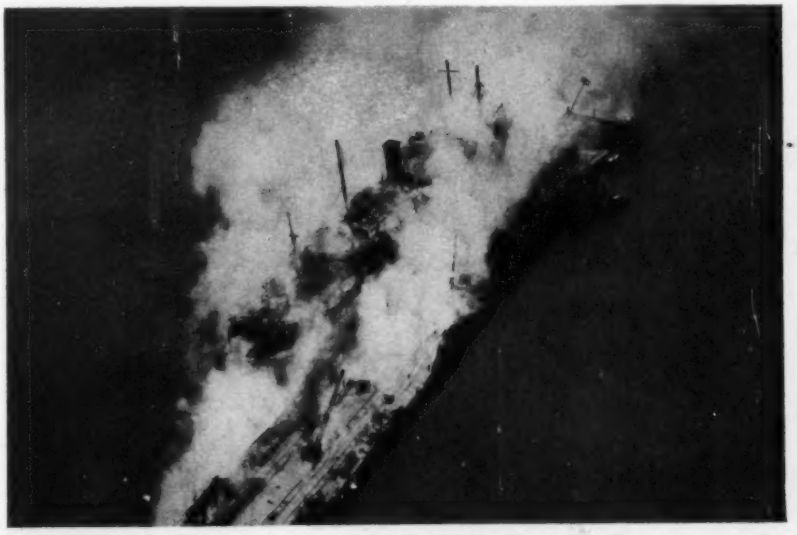
Fire Spotted by Several

Several persons spotted the fire in its early stages. Two workers of the wrecking company in a building near the end of the pier saw smoke about 200 feet out on the pier. This was about 4:00 p.m. They raced along the pier and one pulled a fire alarm box on a telephone pole. The men attempted to cast some of the barges adrift from the pier but rapid spread of the flames prevented.

Meanwhile, at the other end of the pier, a guard for the Maritime Administration noted flames curling around a light pole on the pier, as he was walking the gangplank of the Amerika. He immediately called the fire department. Almost at the same time too, an official of the Merritt, Chapman & Scott company saw smoke coming through the concrete surface of the pier. He also put in a call for the fire department.

By the time the first companies had threaded their way through the heavy rush-hour traffic in the Curtis Bay area, the fire had eaten along the pier, in both directions. A strong wind was blowing out of the northwest at the time and the temperature was below freezing. By the time the first water was turned on the fire, it had spread to involve a large part of the pier at which place it was next to impossible to reach the flames from the land side. Even when fireboats, responding on the multiple

(*Continued on page* 156)



The Troopship George Washington Lies Helpless at Her Pier in Baltimore, Md., as Firemen Pour Water Into Her Still Blazing Hull. The 25,000-Ton Ship Was Caught in the Fire That Consumed a Large Pier, Several Barges, a Large Tug and a Pile Driver

*The editors gratefully acknowledge the assistance of the many contributors who forwarded information on this disaster.

SPRINKLER FAILURE AND DELAY IN ALARM CONTRIBUTE TO COSTLY FIRE

Worst Fire in Kankakee, Ill., Area Wrecks Stove Company Warehouse

A Staff Report*

ON New Year's night, 1951, the Kankakee, Ill., Fire Department was called upon to fight what is said to be the costliest fire in the history of that city. The blaze, which burned from 11:10 p.m. Monday night until 6:00 a.m. Tuesday, wiped out a warehouse of the Florence Stove Company in West Kankakee, stacked high with finished gas stoves, water heaters and oil heaters. Officials of the firm estimate that the loss will exceed three million dollars.

The fire was discovered by Axel Peterson, a plant night watchman, shortly after he started his 11:00 o'clock tour of the plant. He said the flames were burning in an aisle of the warehouse room, and he attempted to fight it with a hand extinguisher. When he saw that the fire was getting away from him he ran to call the second watchman on the shift, Ernest Radsom.

During this interval, the blaze reared through the crates of stoves which were highly stacked and packed with excelsior. When the second watchman returned with the company fire truck, and got a booster line into operation, the fire was well on its way.

The West Kankakee Volunteer Fire Department was then called and the volunteer unit began its hopeless battle with the flames. Faced with the losing struggle, twenty minutes later the Kankakee Fire Department was called.

Photo Courtesy Kankakee Daily Journal

When the Florence Stove Company Plant Fire at Kankakee Was at Its Height.

When the latter force arrived at the scene, the one story warehouse, which covers 58,000 square feet was heavily involved and flames were breaking through windows on the roof of the structure.

The West Kankakee firemen were operating on the east side of the building when Kankakee fire fighters, under Fire Chief Roy Marquart arrived. Four lines were at work and the Kankakee crews immediately placed two more lines at work on the roof, one on the ground in the center of the building on the west side, and a fourth line was brought into play at the southwest corner through a door.

In the meantime, fire forces from two other suburban communities, Bradley and Bourbonnais, were summoned. The latter unit placed two lines into operation on the roof of an adjoining building to the south. A 2½-inch line was taken through the adjoining structure and into a runway connecting the burning warehouse. The Bradley firemen also placed a line in operation on the roof of the burning warehouse at the northeast corner.

Ten minutes after these lines were put in operation, all firemen were ordered off the building, as large sections of the roof began to drop into the blazing warehouse.

Two additional lines were located to cover exposures of the adjoining building to the south, which contained the warehouse and traffic records departments and the final packing and crating room, stocked with large quantities of excelsior and other highly flammable materials.

By this time the raging inferno involved more than half of the building. The sprinkler system installed in the structure was not working during the time the Kankakee department operated on the blaze. Just what caused the failure of the sprinklers when the fire broke out is being investigated.

During the time that firemen were moving hand lines from the roof of the blazing warehouse, one of the members of the Kankakee department had to jump from a section that appeared to be falling. His only injury was a twisted knee, it is reported. Earlier, two firemen from West Kankakee received minor injuries, one of them Leonard Parido, from flying glass and the other, Ziba Hurrell, from a hose that got away from him.

Hose lines ordered off the roof were placed in operation on the ground about

*FIRE ENGINEERING is indebted to Fire Chief Roy Marquart for the information upon which this report is based.

Photo Courtesy Kankakee Daily Journal

Kankakee Fire After It Was Brought Under Control.

the warehouse to prevent the fire from spreading to the rest of the sprawling plant and adjacent buildings. From about midnight, when the roof was abandoned, until about 2:00 a.m., the fire raged out of control within the building. Hose lines were kept on the structure until about 5:00 a.m., when some of the units began picking up. The last fire apparatus left the scene at 7:45 a.m.

An investigation is still being conducted into the cause of the fire, according to Fire Chief Marquart. It is believed that propane gas seeped into the warehouse from a line running alongside the east side of the building on the outside. An electric plate placed adjacent to a riser, to keep it from freezing, supposedly ignited the gas.

When the fire was discovered the watchman should have immediately called both the West Kankakee and the Kankakee Fire Departments and then attempted to fight the fire as best he could until firemen arrived, Chief Marquart reports. According to the fire fighting plans in the Greater Kankakee area, the Kankakee department is to be notified immediately when a fire breaks out in any of the outlying factories. This department was not summoned until 20 minutes after the fire was discovered, according to Chief Marquart.

All off-duty firemen from the Kankakee department were called to the Central Fire Station when the fire captain on duty radioed a second alarm to the station shortly before arriving at the scene. Approximately 80 firemen were in action at the fire from the West Kankakee, Kankakee, Bradley, Bourbonnais and the stove company units. The off-duty Kankakee fire fighters, who were called in, and the Kankakee State Hospital Fire Department unit stood by at the Central Fire Station to protect the Greater Kankakee area in case of a second fire.

Fire fighting was greatly aided by above-freezing temperature, the first in many days, although a drizzling rain fell during the night. Ice from a previous storm covered the ground around the buildings and made footing precarious as water as deep as ten inches piled up in spots.

With the fire occurring late on New Year's night and during rainy weather, there were no crowds to handicap operations and what few spectators were drawn to the scene were kept outside the plant fence by State Policemen and Deputy Sheriffs who directed traffic off Highway 17, which passes in front of the stove works.

Losses to stock included 17,000 gas stoves, 12,000 water heaters and 2,500 oil heaters. The plant had just completed inventory and only a skeleton crew of plant guards and maintenance men were on duty since inventory, officials revealed.

At the height of the fire 17 hose lines were in operation.

190 Die in Chicago Fires in 1950

According to Chicago Coroner, A. L. Brodie, 190 persons lost their lives in fires in that city area in 1950. Brodie said 167 of the victims died in Chicago fires, as compared with only 107 in 1949. In the suburbs, 23 persons perished from flames during 1950, and 25 the year before.

HUNTINGTON FIREMEN CONTROL THREATENING HOTEL BLAZE

Cockloft Permits Spread of Fire Into Adjourning Building—No Lives Lost

A Staff Report*

CHRISTMAS, 1950, was marked by a number of serious fires, one of the worst of which caused heavy damage to the old Adelphia Hotel in Huntington, W. Va., and the adjoining Carolina Building.

Christmas dinner had hardly been finished when the Huntington Fire Department was called upon to fight its fourth major business district fire within eight months.

In the 56-year-old structure, hotel clerk J. E. Chambers was at his desk when he noticed sparks falling down a nearby elevator shaft. He immediately telephoned the alarm. This was received at fire headquarters at 1:51 p.m.

The first alarm response was made by Engine Companies 1, 2, 7 and 9 and Engine 14, the latter manned by only the driver, and by aerial ladder 1. Responding also, were Fire Chief Floyd L. Crouse and Deputy Chief John W. Gallagher.

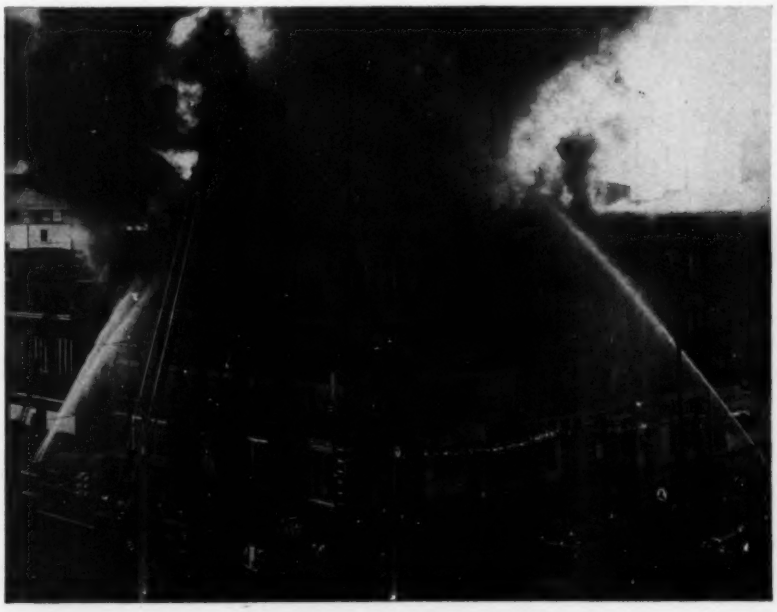
The building involved, housing the old four-story hotel was erected in 1895. It had brick walls but all interior construction was wood. There was a central stairwell with rooms built around it and adjacent hallways. The elevator shaft was located at the rear of a large central hallway on each floor alongside the stairway. A cock-loft was located over the entire structure. Originally there had been only a tin roof over wood sheeting, but in succeeding years it had been heavily coated with tar.

Adjoining the Adelphia Hotel to the north was the Carolina Building, also erected in 1895. Its first floor was occupied by business establishments and its upper floors by apartments. It was disclosed that these two structures had evidently been built in conjunction with each other because there was no brick dividing or party wall between them, the only partition consisting of wooden studding covered by plaster and lath. Like the Adelphia, the Carolina Building also had a combustible cock-loft over its entire roof area and there was no partition between the lofts of the two buildings to retard the spread of fire.

Firemen made their initial attack by taking a 2½-inch and a 1½-inch line into the ground floor lobby of the hotel and thence up the stairway to the fourth floor. Another 1½-inch line was taken by hand ladder through a third floor window on the 9th street side of the hotel. A little patch of fire was found where it had burned through the ceiling over a hallway on the west side of the structure.

All visible fire was quickly knocked out, but apparently the cock-loft over the Adelphia Building was well involved. The department's aerial ladder was raised to a window on the southeast

*FIRE ENGINEERING is indebted to Fire Chief Floyd L. Crouse for the information upon which this account is based.



Huntington, West Virginia, Fire at Its Height

In the background up Fifth Avenue a 2½-inch and a 1½-inch line are being taken up a hand ladder to the roof of the two-story Veterans Administration building, primarily to protect the roof of that building, but the men were able to carry the attack directly to the back rooms of both fire buildings.

corner of the hotel and, shortly after, a 2½ and a 1½-inch line were brought up this ladder to reinforce the attack being made from the interior stairway.

Immediately upon his arrival, Chief Crouse, realizing the serious hazards involved in the nature of the fire building, signaled for additional help. Engine Companies 3, 4 and 5 responded to this second alarm, which was clocked at 1:58 p.m. At 2:31 p.m. a call was sent for Engine 6, leaving only Engine 8 with four men to protect a city of 87,000 population, covering an area of 22 square miles. This unit was re-located from its outlying district to the Central Station, but fortunately it had no calls to answer during the major fire.

In the meantime, fire fighters working inside the building pulled ceilings to make openings over the central hallway, through which streams were directed into the loft. However, too much of the area was involved by the fire, which spread rapidly. It broke through the roof and ignited the thick coating of tar overlaid on the tin, giving off great clouds of black smoke. There being no stops, the fire extended and mushroomed under the roof of the adjoining Carolina Building.

Firemen held their ground in the Adelphia Hotel until the smoke on the fourth floor became so dense it was impossible to see, then a retreat was made. One group backed down the aerial ladder, taking their lines with them to continue the attack from the street level. The other group backed down the stairway to the third floor and took their stand at that point where their efforts prevented the roof from falling in over that area.

When it became apparent that the Carolina Building was also becoming involved, a 2½-inch and a 1½-inch line were taken up the stairway to the fourth floor of that building and firemen were successful in confining the fire to the roof, loft and ceiling of that structure. A 2½ and a 1½-inch line also were taken to the roof of the two story Veterans Administration Building across a narrow alley to the rear of the two fire buildings and their streams played directly into the hotel and apartment rooms involved.

After the aerial ladder was removed from the window of the Adelphia Building, it was set up as a water tower, and the nozzle operated by a fireman at the tip, except when dense smoke forced him down to get under it. Then he continued his control of the pipe by means of guide ropes.

Two turret pipes, one mounted on Engine 14 and the other on the city service truck were operated from 9th street. Several hand lines also were brought into play from the street. A total of 17 2½-inch lines were used; seven of these were employed to feed three turret nozzles and the other ten were operated as hand lines. Five 1½-inch lines also were used. These smaller lines, although not delivering the volume of water carried by the larger lines, were found to be very advantageous because of the ease and quickness with which they could be handled and maneuvered from one position to another.

The blaze was under control by 4:00 p.m., and it was found that the department had been successful in preventing the fire from extending below the fourth story of the two buildings involved. Actually, it was reported, most of the top floor of these two structures were unscorched by reason of the volume and distribution of the water used.

Investigation disclosed that the fire apparently started from an overheated elevator motor, where it ignited the top of the elevator shaft, then quickly mushroomed under the roof. One lesson learned from this fire, according to the department, is that in such old buildings erected two generations ago, the construction is such as to further the rapid spread of fire despite the efforts of an alert, modern fire force to reach it and extinguish it. Another lesson is the necessity of having building codes that require such buildings, especially hotels, to be sprinkler protected. If this fire had started at night, with the building filled with sleeping guests, according to fire department officials, there might have been a serious loss of life. The fire also demonstrated the need of having a rigidly enforced electrical code, with frequent inspections.

The Fire Being Brought Under Control and White Steam Taking the Place of Black Smoke
The apparently crooked stream on Ninth Street was caused by a fireman jerking a turret pipe nozzle upward just as the cameraman snapped the camera and the stream had not had time to straighten itself out. The 2½-inch line on the roof of the bank building in the foreground was taken there as a precautionary measure, but was not needed. Another 2½-inch line has been taken up the fire escape on the rear of the building adjoining the fire building; as soon as this line is charged it will be used to play through a hole torn in the brick wall directly into the burning loft of the Carolina building.

Volunteer's Job Also Has Financial Risk

Being a volunteer fireman in thousands of communities in the United States and Canada is a commendable, unselfish public service. But the tens-of-thousands of such volunteers would do well to consider the case of Oscar Osback, a Lyndhurst, N. J., volunteer. Because the township had no insurance on drivers of fire trucks, Osback is threatened by financial ruin.

In 1948 Osback was driving back from a fire when the truck was in collision with a car driven by William Coles. A few months later, Coles died and his widow won a $10,000 judgment against Osback.

The volunteer fireman thought Lyndhurst was insured for such accidents, as New Jersey law requires, but it wasn't. As a result, the township helped Osback fight his case in court but denied responsibility when the $10,000 award was made to Mrs. Coles.

Mayor Savino and Township Attorney Stellato expressed their regrets, but insisted that "legally, the township is not liable." Whether Lyndhurst is legally liable or not, it is not offering to pay the $10,000 for 65-year-old Osback. It's fighting such a move.

To satisfy the judgment against him, Osback has had his small bank account frozen. His salary as an employee of the Lyndhurst Water Department has been attached. In September his wife died because "she was worried sick about this mess." Now Mrs. Coles' lawyers are trying to get Osback's house, which he has deeded to his son.

"I haven't got anything left," Osback says, "but I'm fighting this thing because of my kids."

The fight Osback is waging now is against the township. He wants Lyndhurst to assume the debt to Mrs. Cole. The New Jersey and New Volunteer Firemen's Association hired a lawyer to help Osback but the Superior Court decided against him.

"The failure of the (Lyndhurst) officials of a municipal corporation to perform a governmental duty is a public wrong, but cannot constitute the basis of a civil action by an individual who has suffered particular damage by reason of such neglect."

Osback now hopes the volunteer firemen's association will stick by him and appeal the verdict.

Mrs. Cole's lawyers said they realize Osback's trouble but added they could sue only him, and not Lyndhurst, because the courts have ruled a municipality cannot be held liable for the acts of its agents.

New Jersey fire fighters say it would be wise for volunteer firemen to inquire into where they stand in their communities should an accident occur.

Oscar Osback used to thrill at the sound of a fire siren. Now he hates the sound.

JERRY KLEIN

Business District Fire at Sisseton, N. D., Involved Buildings on Both Sides of Street

Sisseton Suffers Serious Simultaneous Fires

Two disastrous fires struck the community of Sisseton, S. D., within a mile of each other in 12 hours on an October Sunday, resulting in a loss of over $500,000.

Firemen of three communities were still playing water on the ruins of a major business district blaze when fire was discovered 10 blocks away, in the Farmers' Grain Elevator.

This circumstance, together with the fact that the area had already suffered four previous damaging fires this year, impelled officials to ask investigations by the FBI and the state fire marshal's office.

The major near-conflagration swept the Stavig Brothers Department Store, one of the state's largest, then leaped a street to destroy a one-story frame structure housing three business concerns. The loss in the Stavig fire alone, it is reported, exceeded half a million while the damage to the elevator is reported at $60,000.

The Stavig blaze was discovered at 5:25 A.M. in the brick and joist constructed department store and, although help was quickly called from Wilmot, S. D., and nearby Browns Valley, Minn., the combined efforts of these forces and the local fire fighters were unable to prevent extension of the fire across the street. Sparks apparently ignited the roof of the frame business structure which house a tavern, a sports shop and a cafe and it was soon fully involved. Firemen, however, did manage to control further extension of the blaze, although the radiated heat broke windows in other nearby exposures. Sparks also set fire to the Roberts County National Bank building but this fire was soon extinguished. The smoke of this fire could be seen over 10 miles away.

The tired firemen, called up to fight the blaze in the elevator which had a good start, were able to save one of the three units of the structure although it suffered considerable damage. The total capacity of the elevator was 80,000 bushels of grain.

The fire apparently started in the upper part of the building but firemen were at a loss to explain its origin, doubting the possibility of sparks, as the cause, because of its distance—nearly a mile from the other fire. The height of the fire above ground made it difficult to fight it, firemen being handicapped by lack of adequate facilities.

Fire losses of the year in Sisseton were reported at over $800,000. The first major blaze occurred on January 14 last year, when Kane's cafe was destroyed with loss of $15,000. A $175,000 blaze hit Hoy's market, the Cahill furniture store, Laverne's tavern and city bakery on March 1, and on April 10 the Christianson Grain Company elevator was burned with loss of $56,000. On April 26, sixteen days later, the Dady pool hall and Wally's cafe were wrecked with loss of about $20,000.

Five Dead in Cincinnati Blast and 3-Alarm Fire*

Five persons died and fifteen were injured, many seriously, when an explosion of unknown origin, followed by fire, destroyed the American Waterproofing Corp. plant at 3200 Beekman St., Cincinnati, Ohio.

The company processes cloth with waterproofing and fire resistant chemicals. Paraffin and naphthalene are used in the process for the base coating. The plant contained large quantities of both flammables stored above and below ground. The structure, which was approximately 100 feet wide and 150 feet deep, was of two stories, one being below ground level. The tracks of the B. & O. Railroad pass in the rear of the plant.

There were many rolls of material, to be waterproofed, stored on the several levels of the structure and some was in process of being impregnated when the explosion occurred.

What caused the blast will probably never be learned, but it was believed that volatile fumes became ignited in some way, producing a terrific blast which demolished most of the walls of the building, letting the roof drop to the floor below.

The shock was felt at considerable distance and reduced most of the concrete, steel and tile structure to a jumble of chunks and slabs, broken glass, and twisted metal. More than 100 windows in the area were broken, and the vacuum following the blast sucked out the large metal frames of windows in a lumber company 100 feet behind the waterproofing plant. Fire which followed immediately, added to the disaster.

The fire department received its first notification of the trouble at 9:28 A.M., via telephone. The caller erroneously informed the fire alarm bureau that the Gulf Oil Co., 3222 Beekman had exploded. Operators Doerman and Connic at the alarm center struck box 3371 which is located at 3200 Beekman St.

Two engines and one ladder with the Salvage Corps responded under veteran District Marshal Geslabracht, the normal daytime response for that district of the city. On arrival, Marshal Geslabracht radioed for two additional engine companies and the ambulance before leaving his car; after a size-up of the situation, he ordered the third alarm sounded, seven minutes later.

When firemen arrived on the scene they found victims crawling and stumbling from the wreckage, some with clothing aflame. Other injured persons sat, or leaned against, nearby buildings, dazed and uncomprehending. Telephone wires were torn down, and the street and surrounding area was littered with rubble and debris.

As the fire spread in the burning naptha and other flammables, firemen rushed to the rescue, and strove to get water on the flames. Their efforts were

*The editors are indebted to correspondent Pat Holz of the Cincinnati Fire Department's fire alarm bureau for most of the information upon which this account is based.

American Waterproofing Company Plant at Cincinnati, Ohio, Shortly After Explosion. Blast and Subsequent Fire Resulted in Virtually Complete Destruction of Plant

temporarily handicapped by the rupture of a 4-inch water main which was broken by the blast. Until three water works crews could repair the damage, fire fighters were forced to operate with low pressure. Another drawback to successful fire control operations was the fact that the ground was frozen and ice-coated from the blizzard of a few days before. The need of checking on the 20 or more persons known to have been working in the plant at the time also slowed operations. It being Saturday, only a skeleton crew was at work in the plant at the time.

Fire Chief Barney J. Houston reported on the third alarm and took command. Firemen were able to prevent extension of the fire to the plants of the Panda Products Co. and Hamilton Fan & Blower Co. on the north. Had these ignited, it would have imperiled the Gulf Refining Co. property just north of those exposures. A next door warehouse and the plant of the Shott Mfg. Co. to the south also were saved as was the Clem Lumber and Distributing plant across the railroad tracks to the east.

Following the extinguishment of most of the fire, firemen under Marshal Richard Spelman overhauled the debris, cooled down smoldering bales of cloth, while the Arson Squad under Marshal Robert Sommers endeavored to fix the cause of the trouble. Later, state officials were brought in to further investigate the tragedy, claimed one of the worst of its kind in Cincinnati in the last decade. Four of the dead were burned to death and one killed by the blast when he was thrown against a next door building.

Chief Houston was aided also by Assistant Chief Leo J. Kuhn and Acting Assistant Chief Dan Vogel, Marshals Purcell, Kummer, Rose and Geslabracht. Chief of Salvage Corps H. C. Williams and Assistant Salvage Corps Chief J. Frank also were on hand.

Response of operating forces was as follows: Box 3371, Eng. 12, 21; L. 8; Salvage 2; Marshal Dist. 3. Additional companies after the first alarm, Eng. 20 and 13.

Third alarm (333-3371) brought Eng. 19, 17, 2, 42; Ladder 13 (for L. 2 on another alarm); Marshal 4; also Eng. 44, 14, 32 and the Rescue Squad, with the Foam Co. 2; L. 6; Marshal 2, and Salvage Corps 1.

Time of alarms: 1st at 9:28 A.M.; extra companies called at 9:33 A.M.; third alarm at 9:40 A.M. Fire struck out at 11:09 P.M.

The Police Department sent all patrols and available ambulances to the scene, and used extra men to handle the large crowds of the curious who swarmed to the area, drawn by the clouds of smoke, visible five miles away, and the newscasting of the disaster.

Four Die in Minneapolis 4-Alarm Hotel Fire

Four persons were killed and six injured on November 26 when fire raced through the four-story Tower Hotel, 229 Cedar avenue, at Seven Corners, Minneapolis, Minn. Firemen, responding on four alarms, led or carried 20 men, women and children down ladders to safety. Others of the 75 guests in the structure at the time found their own way to safety through smoke filled halls. The dead were all trapped on the top floor.

Firemen, including 50 off-duty men called in, fought the smoky fire in 27-degree weather, their efforts being hampered by strong northerly winds.

Origin of the blaze was not determined. Major damage to the hotel was on the third and fourth floors, but it was believed the fire originated below that point, possibly on the main floor, occupied by business concerns, and swept up an air shaft to mushroom and trap the victims on the fourth floor.

The blaze was the worst in the tenure of Fire Chief Reynold Malmquist, with the exception of the airplane crash and fire which claimed 15 victims in south Minneapolis last March 15.

The fire broke out at 12:30 P.M.; first arriving fire fighters found guests leaning from most of the windows and heard screams enanating from the interior. The building was quickly laddered and many of those in danger were removed by this means. Other firemen climbed fire escapes to endeavor to locate those confused in smoke filled halls. Two guests, O. J. La Doucre, 77, and his son, Lawrence, 47, escaped by crawling from their second floor window out on a chain holding an electric sign. Firemen reached them with ladders just as the elder's grip was weakening.

Smoke and water damage was reported to seven businesses on the ground floor. The loss was estimated by Chief Malmquist at $150,000.

Fatal Tower Hotel Fire, Minneapolis, Minn., November 26

There's Joy in Mt. Joy as Fire Signals "Vacation" for Pupils

Pupils of the Grandview School near Mt. Joy, Pa. (what's in a name), register joy as they sit amid desks and equipment salvaged from their 75-year-old, one-room frame schoolhouse, burning briskly in the background. The fire, of undetermined origin, wrecked the building, but of school's 29 pupils were led to safey by their teacher when fire was discovered.

Sky Fire-Fighters

Manhattan's fire fighters fought a tubborn and smoky fire 57 stories above ground Jan. 27th in the 102-story Empire State Building.

The blaze burned through a suite of three offices on the south side of the tallest building in the world, at about the same elevation as the scene of the airplane crash some years ago, which claimed many lives.

The fire was discovered by a cleaning woman at 8:52 P.M. in the suite shared by the Bolivar Exporting Company, the Wilton Carpet Company and Morris Speizman Company. Firemen from midtown Manhattan Companies took their hose via elevator to the floor below the fire where they connected to the building's powerful standpipe system. The building itself is practically non-combustible, but its furnishings aren't and sufficient material became involved in the fire in the offices to give

off a punishing smoke which handicapped efforts to get at the fire and extinguish it.

Firemen had the blaze out, however, in forty-five minutes. The cause and the losses to building and occupants was not determined.

Propane Gas Blast Imperils Springfield, Vt., Apparatus

The Springfield, Vt., plant of the Vermont Lighting Corp. is in process of completing a changeover to propane gas from carbureted gas. The task of readjusting burners in homes and industrial locations to accommodate this type of gas is being done by the American Gas Conversion Co., Inc., specialists in this work.

About one hour after a workman had adjusted the gas pilot which controls the degree of flame in the blower type oil burner in the Municipal Building, which also contains the fire department apparatus room in the basement, there was an explosion. The time was 6:10 p.m.; the date, January 7.

The blast occurred in the fire box of the boiler, blowing out the boiler room's fireproof door and casing, which landed on a fire truck parked several feet away. The boiler room window casing and frame also was blown off and seven windows were broken in the front of the station, distance about 50 feet.

Fortunately there were no injuries to Captain Sinon or Driver Jonas Welcome who were on duty at the time. Representatives and workmen of both companies returned to the scene of the blast and worked until 1:00 a.m., January 8th, to repair the damage and make the boiler usuable.

The explosion came as a surprise to Fire Chief Miland Jordan of the Springfield Fire Department who had been very busy checking places of business where changeover had been made and who was on the alert for just such an eventuality. The chief was more than a little surprised to learn of the bust-up at his own station.

Pitsburg, Ohio, Has Its Largest Fire

The fire in the Harter Hatchery on Oct. 23rd last, marked the largest fire in the history of Pitsburg, Ohio, according to Fire Chief Herbert Stutz. Loss included 2,170 head of chickens. Parts of the structure were saved, however, by diligent work of the local, and neighboring fire forces.

Origin of the fire, which was reported received by the department at 1:20 P.M., was not immediately disclosed. It had gained some headway in the 80x65 ft., combustible, two-story structure before fire fighters arrived. One connected dwelling and several other dwellings and other buildings located near the hatchery were threatened.

Upon arrival, Chief Stutz called at once for assistance, which was prompt in forthcoming. The Laura and Arcanum Fire Departments brought men and apparatus.

The fire, fanned by a stiff breeze from the north, was a hot one for firemen. Despite the heat and smoke, booster lines from the Laura and Arcanum pumpers were operated in close range, helping to save much of the office located in the northeast area of the building, and to prevent extension to exposures. Firemen were compelled to lay a long stretch of large hose from a fire well 1,000 feet distant and relay into another pumper. Property loss was estimated at $25,000.

Eight-Year Record

The 24-hour period pending midnight January 17 was the first in at least eight years in which no damage was reported from any fire within the city limits of St. Louis, according to Fire Chief Walter H. Kamman. Actually, the period may have been longer, the chief believes, because records have only been kept since the creation of the Fire Prevention Bureau eight years ago.

Twelve fire calls were sounded in the period for apparatus but of these, four were false alarms, two were set off accidently and six others were for minor incidents.

GEORGE BEAUMONT

Dayton Firemen Save 26 at High School Fire

The Dayton, Ohio, Fire Department successfully rescued 26 people from the sixth floor of the Parker High School, using an 85-foot aerial ladder, when fire swept an Annex floor.

The building is a six-story, fire-resistant, former factory building, provided with two fire-resistant stairwells and freight elevator. All openings are provided with fire doors.

The fire started in an automobile on which acetylene cutting operations were being performed and spread to grease, oil and other combustibles. An unsuccessful attempt was made to extinguish the blaze with a 2½-gal. soda and acid extinguisher while the alarm was being sounded, but the person or persons who rushed to the telephone to send in the alarm left the fire door to the northeast stairwell open and the others, leaving the fifth floor, failed to close it.

The fuse on the metal curtain fire door broke, releasing the door, but it failed to close as it had been dented approximately six-inches deep, causing it to stick against the wall. The grease, road tar and upholstery of the automobile continued to burn, giving off increasing clouds of black smoke, which spread up the southeast corner elevator shaft and northeast stairwell. Evidently the heat was not sufficient to fuse the sixth floor metal fire curtain on the elevator shaft.

The occupants of the sixth floor closed the fire door in the northeast stairwell. Fortunately, there was a glass and wood partition on the sixth floor, cutting off the south part of the building (elevator shaft location) which held most of the smoke and heat there.

The instructor in charge of the sixth floor, Don Blair, maintained order and calmed the students, who ranged in age from 16 to 40 years, until the department's aerial ladder was raised to the window and their escape could be facilitated.

The fire department stretched a 2½-in. hose line to the fifth floor via the southeast stairwell and extinguished the fire within five minutes after receipt of the alarm at Signal Headquarters.

Acknowledgment: FIRE ENGINEERING is indebted to Fire Chief Forrest B. Lucas of the Dayton Fire Department for this interesting account.

Dayton Aerial Ladder Carries Heavy Student Load to Safety

The Dayton Fire Department, Chief Forrest B. Lucas, proved the assertion that fire service ladders must have a good margin of safety, when one of its aerials served as the escape route for 26 students caught in the Parker High School fire.

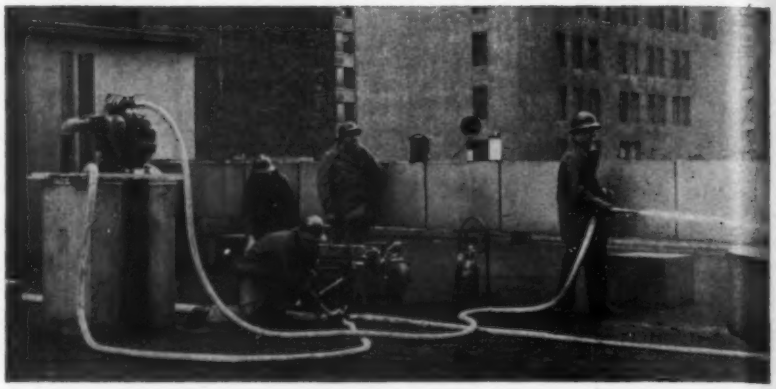
Savoy Plaza Hotel Gears for Fire Protection

An example of what progressive hotels can do in the way of emergency fire protection is given by the Hotel Savoy Plaza, 767 Fifth Ave., New York City, one of the city's foremost hostelries.

The fire brigade of this hotel, under the capable leadership of Frank Steixner, Chief Engineer, is outstanding in trained personnel and equipment. The members of the brigade do not consider themselves professional fire fighters, but are thoroughly versed in emergency first aid fire fighting and their equipment is in every way up to professional standards.

It is possible this fact stems from close association with the nearest and "first-due" fire company of the New York Fire Department, Engine 23, which is located at 215 W. 58th Street, Manhattan, only a few blocks distance. At any rate, there is more than a passing suspicion that officers and members of this Company, piloted by Captain Harry G. Kihlgren, have taken a sort of parental interest in the Savoy Plaza's brigade and its facilities.

Captain Kihlgren is said to have been present at surprise test alarms and witnessed unrehearsed and unprepared response of the brigade fire fighters to these alarms—received from various sections of the hotel, and to be fully satisfied with the brigade operations.



Fire Brigade of Savoy Plaza Hotel Shows How It Operates

Eight Lives Lost in Chicago Apartment Fire

Eight persons, all negroes, were known dead in a fire that roared through one of Chicago's south side, 4-story apartments, on Dec. 9 last. At one time it was feared the toll of victims might exceed that of the streetcar-gasoline truck crash of last spring. At least 300 persons were said to be crowded together in the combustible old store front apartment building, with its interior broken up into one- and two-room suites, many of them without baths.

Firemen, responding on a 5-11 alarm, fought the fire for three hours before fully controlling it. In the operations it was necessary to wet down adjacent buildings to prevent the blaze, whipped by a strong east wind, from spreading.

Despite their efforts, first firemen on the scene were able to rescue only four persons from the structure. The fast spread of the flames forced them out of the structure, necessitating outside operations, using deck and tower pipes and hand lines.

Members of Ladder 11, first truck to reach the scene, reported the death of one woman who jumped from her fourth-floor window without waiting for the ladder they raised to her. The bodies of four adults and one child were found amid charred debris on that floor. The bodies of two children were located in another room on the same floor.

The building, which occupies an area about 125 by 125 feet, is located at the northwest corner of 31st Street and Indiana Ave. Its top three floors contained apartments, the ground floor, being used by a saloon, a barber shop and a dry cleaning shop. Fire Marshal Anthony J. Mullaney estimated the damage at $100,000.

Eight Persons Lost Their Lives in This Apartment House Fire on the South Side of Chicago in December

N.F.P.A. Inspection Manual

The National Fire Protection Association has published a new pocket-size *Inspection Manual* by Horatio Bond, Chief Engineer, which replaces the previous manuals issued under the title *"Field Practice."* The new handy, condensed manual, like its predecessor, is for fire departments, property owners and inspection offices. Its brevity should appeal to the beginner in inspection work, but the experienced inspector also will find in the material contained in its 330 pages those references which he most frequently has occasion to consult.

The first inspection manual was published by the N. F. P. A. Committee on Field Practices in 1914 and called *"Field Practice."* It was revised in 1922 and 1929 and found wide acceptance. The present edition contains some 37 chapters on all pertinent subjects dealing with present-day inspection in addition to other helpful information and a convenient index. The N. F. P. A. Committee on Fire Inspection includes: Arthur G. Smith, Chief Engineer, Travelers Fire Insurance Company, Chairman; A. L. Brown, Chief Engineer Factory Mutual Engineering Division; Edward W. Hall, Fire Marshal, Detroit Fire Department; R. J. Douglas, Associate Professor of Fire Protection, Oklahoma A & M College; Wm. G. Hayne, Superintendent, Bureau of Fire Prevention and Water Supply, New York Board of Fire Underwriters, and R. D. MacDaniel, Vice-President, Grain Dealers National Mutual Fire Insurance Company.

The new manual is plentifully illustrated with photographs, diagrams and charts for the further convenience of the inspector. Copies may be obtained from the National Fire Protection Association, 60 Batterymarch St., Boston, Mass.

New Officers of Southeastern Michigan Fire Chiefs Association

Elected at its November meeting to head the Southeastern Michigan Fire Chiefs Association for the coming year were the following; President, H. Gloyd, Chief, Murray Corp. of America; First-Vice President, C. Dubay, Chief, Mt. Clemens Fire Department; Second-Vice President, T. Dickson, Chief, Lincoln Park, Fire Department and Sec.-Treas. H. Flechsig, Chief, Rockville Fire Department.

Moonshiners Get Jail for Fatal Fire

Two Bridgeport, Conn., men, Arthur DiLorenzo, 36, and George Guccione, 21, were found guilty of manslaughter charges on November 17 in Superior Court, Bridgeport, which grew out of the deaths of two children in a Shelton fire on April 1.

Sentences of three to five years in State's prison at Wethersfield were imposed on both men by Judge Abraham S. Bordon. Immediately after sentence had been imposed, DiLorenzo and Guccione, through counsel, appealed their convictions to the Connecticut Supreme Court. Bonds were set in each case at $30,000. The defendants were released pending decision by the Connecticut Supreme Court.

In eight days of actual trial the State succeeded in convincing Judge Bordon that a still operated by DiLorenzo and Guccione in the basement of a tenement house at 44 Bridgeport Avenue, Shelton, set fire to the premises, causing the deaths of two of the building's occupants, John M. Kieley, four, and his three-months-old cousin, Jacqueline Reilly.

Judge Bordon, announcing his decision about 30 minutes after the arguments had been concluded, said he had given the facts of the case very serious consideration. Judge Bordon said that he was unable to agree with the opinion expressed by Reuel C. Stratton, a Hartford chemical engineer, and one of the principal witnesses for the defendants, concerning the origin of the blaze.

Mr. Stratton claimed the fire probably started from spontaneous combustion in a pile of evergreen tree branches on the main floor of the building, from defective wiring as the result of the carelessness of transients on the premises.

Judge Bordon said in his opinion the spontaneous combustion theory was "fantastic, and the defective wiring explanation remote." There was no evidence of transients having been in the building, the jurist declared.

The theory of another witness for the fense, Stuart L. White, a fire protection engineer, of Stratford, that the blaze might have been caused by a coke stove in the basement seemed to have a logical basis, Judge Bordon said, except for evidence that there had been no fire in the stove for some time prior to the outbreak of the conflagration.

"From all the evidence," concluded Judge Bordon, "the only live fire in the building was in the fire box of the still. It is my conclusion the fire started in the still, and I therefore find the defendants guilty as charged."

Two other men are under arrest for manslaughter in connection with the case. Their cases are pending in Superior Court. One of the men held was a witness against DiLorenzo and Guccione.

TOM MAGNER

V. A. Hospital at Walla Walla Stages Evacuation Drill

Every year the huge Veteran's Administration Hospital at Walla Walla, Wash., gets behind the Fire Prevention Week drive with spirit, in which the Hospital Fire Department, Frank Maddux, Chief, gets the aid of the institution's staff and its patients.

This year's observances were highlighted by a special evacuation drill which served both to impress the staff and patients with the wisdom of preventing fire, and the procedure to be followed, should it strike.

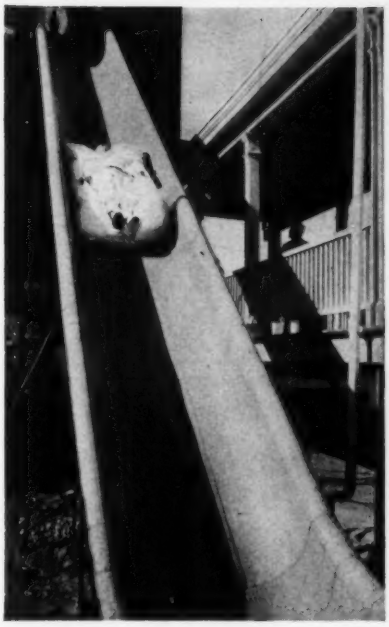
Fire Chief Maddux and the Ward Surgeon of Ward 8 supervised the training related to the extinguishment of the supposed fire, and evacuation of patients, which took about thirty-five minutes. The drill itself was directed by the Charge Nurse with two attendants participating.

Organized classification included:

1. Simulating fire and turning in alarm.
2. Removing patients from danger area.
3. Isolating fire and closing off ventilation.
4. Fighting fire by best means at hand until arrival of the fire department.
5. Preparing to evacuate:
   a. Assembling stretchers.
   b. Clearing exits.
   c. Assembling wheel chairs, blankets and robes.
   d. Removing bed patients.

The full scale evacuation demonstration, preceeded by the sounding of the general alarm, showed that three wheelchair patients, one bed patient and forty-seven ambulatory patients could be removed from the ward in less than four minutes.

Personnel from the various divisions and other wards of the hospital responded to the sounding of the general alarm and gave assistance, as they would in the event of a real ward emergency.



Ward Nurses and Attendants, Assisted by Fire Department, Evacuating Bed Patient from Second Floor of Building 69 (Ward 9) During an Evacuation Drill, Fire Prevention Week, October 11, 1950

Two Bridgeport, Conn., Men, Arthur DiLorenzo and George Guccione, Were Sentenced to State's Prison in Superior Court, Bridgeport, on November 17, After Being Found Guilty of Manslaughter Charges Growing Out of the Deaths of Two Shelton Children Following the Explosion of a "Still" Last April 1. Above Photos Show (Left) the Two and a Half Story Frame House at 44 Bridgeport Avenue, Shelton, After "Still" Exploded, and (Right), the "Still."

In connection with the drill, the Hospital Fire Department responded and laid out equipment as it would in the event of a real fire. The practices and training (of the department) included:

1. Receiving the alarm.
2. Responding to location.
3. Visualizing the situation.
4. Size up—covering:
   a. Type of building.
   b. Fire to hydrant hook-up and hose layout for capacity and pressure operation.
   c. Pump operation and motor maintenance.
   d. Use of ladders, carrying and raising.
   e. Overhaul.
   f. Picking up hose, reloading apparatus and returning to station.

The fire department and official staff at the institution also carried on other more routine fire prevention activities, such as use of stickers, posters, exhibits and distribution of literature on fire prevention; cleaning up and clearing out of the areas of offices, shops, homes, etc.; lectures over the radio station for patients and for new employees; and inspections by the fire department.

New York State Airport Executives Witness Aircrash Fire Control Tests

Modern techniques in fighting airplane fires with easily handled, low cost material and equipment were demonstrated to 150 New York State airport executives at the Clarence E. Hancock Airport, Syracuse, N. Y., during a 2-day Airport Management conference sponsored by the N. Y. State Department of Commerce.

Representatives of American-LaFrance-Foamite Corp. and Pyrene Mfg. Co. extinguished airplane fires and high octane gasoline blazes. Illustration shows control operations on a C-45 in which high expansion foam blanketed a hot fire.

Celluloid Flash Touches Off N. Y. Four-Alarm Fire

Explosion of nitro-cellulose in a five-story loft building at 57 Murray Street, in the congested, high hazard area of Manhattan, started a fire on the afternoon of November 27 last, which rapidly grew to four-alarm proportions, injured four persons and damaged four buildings before being controlled by firemen directed by Fire Chief Peter Loftus of the New York City Fire Department. Firemen led four persons to safety from the roof of the burning structure by way of a ladder leading to an adjoining building.

The first alarm, at 2:43 P.M., followed an explosion in the fourth floor plant of Handles, Inc., manufacturers of women's handbags. An overheated drilling machine set off the nitro-cellulose, which burst into flames. The fire spread rapidly to other floors of the loft building, thence to the adjoining eight story building at the rear with frontage at 57 Warren Street, and to block-through frontages at 55 Murray and 55 Warren Streets. The building at 52 Murray Street was also damaged. The block is bounded on the west by West Broadway and on the east by Church Street.

The first streams of water failed to reach the upper floors, but within a few minutes a water tower and deck guns, fed by the high pressure system, were effective in driving back the flames. The heavy concentrations of smoke were blown over the downtown area by a northeast wind.

Most seriously injured was Thomas Loll, 30, who dashed from the building into the street with his clothing afire. Firemen and Police beat out the flames and he was rushed to the hospital with first, second and third degree burns of the face, hands and head.

Also injured was Sol Brooks, 57, a partner in the Howard Metal Spinning Co., on the fifth floor of 57 Murray Street, who suffered first degree burns of the head, face and hands when he lingered to see that all his employes had escaped.

Twenty-one pieces of apparatus responded on the four alarms, sounded in quick succession. The fire was under control at 4:05 P.M.

Water Tower Operates Into the Upper Floors of a Lower West Side Loft Building at 57 Murray Street, New York City, During a Fire Which Quickly Spread to Two Adjoining Structures

Dramatic Rescue

According to Fire Chief Peter Loftus, one of the most spectacular rescues made by New York firemen in years was staged January 16th, last, at 32 Spruce Street, Manhattan. Thousands of spectators applauded as Fire Lieutenant John F. McGlynn and Firemen Solomon Wells and James H. Jefferan of Ladder 10, N.Y.F.D. threw their 85 ft. aerial ladder against the wall of a blazing 6-story building at that location to snatch Murray Shelton, 42, a demolition foreman, just as his grasp was slipping from a swaying steel reinforcing bar, atop the blazing structure.

The fire started, according to Fire Marshal Martin Scott, when sparks from a cutting torch fell down an elevator shaft to ignite oil accumulations, roared through the old building in process of demolition, trapping Shelton whose only hope was to clutch a bar left exposed in a spot where the brick had partially been knocked out. Ladder 10 in command of Lt. McGlynn, arrived in the nick of time. The foreman, his hair and eyebrows singed, and burned about the face and hands, was just about to drop when the crew snatched him.

Shelton said that after clutching the steel bar he didn't remember much of anything until he was on the ground. Fourteen other workmen escaped safely.

New Fire Station and Apparatus of the Sutterville Heights Fire Department. Shown in the Foreground, Left to Right, are Charles Miner, Fire Commissioner (Ret.); Charles Deterding, County Manager; Sam Parker, Fire Commissioner; Dudley Heale, Fire Commissioner; William Hess, Fire Commissioner and Chief O. R. DeLaMater

A Fire Department Created in Four Months

Newest independent fire department in Sacramento County, Calif., is Sutterville Heights Fire District, which has joined 27 other fire districts in the area that have organized and financed their own fire protection.

It all came about on May 15 last, when limited protection to the district afforded by the Sacramento Fire Department was terminated and the yearly $24,235, paid the city by the district, was stopped by decision of Fire Commissioners William Hess, Dudley Heale and Samuel Parker of Sutterville Heights.

On May 21 last, O. R. DeLaMater, retired captain of the Sacramento Fire Department, met with these commissioners, discussed the formation of a fire department to protect the district and was named chief engineer of the project. Two days later he made arrangements to rent a fire rig for temporary use. With Lieutenant Chas. Elberson, who was also employed by the district, a fire truck was built to afford temporary protection to the district until it could purchase apparatus. The "home made" job, constructed in part of plywood and 2x4's, was completed to carry 1,000 ft. of 1½-in. single jacket hose, 250 ft. of 2½-in. double jacket hose and some equipment.

The first fire drill was held on June 6th by Chief DeLaMater and, a few days later, the force of eight volunteers was increased by the addition of a third paid man, Lieutenant W. S. Davis. On June 20, arrangements were made with Tom Ward of the State Department of Vocational Training for an instructor and 15 men thereafter completed the course and received diplomas.

By this time citizens of Sutterville Heights knew there was a fire department in their district and pride in the new enterprise blossomed. On May 25th, ground was broken for the erection of a fire house. This was completed and occupied in September, with the district proudly installing a new 500 GPM pumper with 1,000 ft. of double jacket hose and other essentials.

With two pieces of apparatus, the townsfolk breathed easier but Chief DeLaMater and the Commissioners, still were not satisfied, so another piece of apparatus was ordered, for delivery in December.

The new fire house, which cost $24,500, has living and sleeping quarters for four regular men and all the necessary vehicles, a classroom, kitchen and other facilities.

Until the new station was completed, the department was housed in a garage, the paid men sleeping on cots and carrying their meals. It was rugged going but the folks of Sutterville Heights, named after the earlier California gold rush pioneers, are used to roughing it, and besides, it was all in a good cause. Meanwhile, the insurance rate for the district has dropped from $1.20 per 100 to .75 per 100, and the end is not yet!

Fire Levels Fur Processing Plant

A general alarm fire of undetermined origin destroyed the 140-year-old, four story wooden frame factory of the Lockwood Fur Company, Belden Avenue, Norwalk, Conn., on November 15, causing damage estimated at $700,000. About 70 of Norwalk's 76 paid firefighters, and all city apparatus, answered the alarm. A large amount of raw and finished fur was destroyed.

When firemen under command of Fire Chief Charles A. Volk answered an alarm, received at Fire Headquarters from a plant watchman, Ray R. Studwell, at 4:45 A.M., flames were shooting through the roof of the factory.

Chief Volk ordered a second alarm turned in at 5:05 A.M., which called all Norwalk fire apparatus to the scene. At 5:08 A.M., an outside general alarm was sounded. Volunteers from Rowayton and Westport Fire departments were sent to "cover" Norwalk fire stations during the height of the blaze.

Joseph Hassan, of Danbury, President of the Lockwood Fur Company, said all equipment and fur stored in the building was lost. The Company processes fur used in the manufacture of hats and employs about 80 persons. Lathes, milling machines and drill presses of the Norwalk Machine Tool Company, also located in one end of the building, were destroyed by the intense heat. The building was constructed nearly 140 years ago, and during the Civil War it was used to manufacture uniforms for soldiers in the Union Army.

TOM MAGNER

A Portion of Brick Wall, Which Stood at the Entrance to the Lockwood Fur Company, Belden Avenue, Norwalk, Conn., Is All That Remained After $700,000 Fire Which Destroyed the Factory on November 15. The Building Was Erected in 1810

Relay Pumping Saves School

A fire of undetermined origin early on the morning of August 1 gutted the auditorium stage of the Leland, Michigan, school causing a loss estimated at $7,500. The blaze was also the baptism of fire for the recently constructed pumper of the Leland Volunteer Fire Department.

The fire was discovered by summer resorters living across from the school when they awoke to find their home filled with smoke. They drove to the nearby fire station and notified Chief Ernie Van Zee. Chief Van Zee sounded the alarm siren and responded with the new truck.

First arriving volunteers found the 1½-story, fire-resistant building heavily charged with smoke, and the varnished pine walls and ceiling of the stage enveloped in flame. Using recently acquired gas masks, firemen laid three 1½-inch lines into the building. The fire, which buckled steelwork in the adjoining gymnasium, was confined to the stage; although smoke damage to the recently repainted classroom section was heavy.

Because of the absence of hydrants in the town, all water for the fire was supplied by a portable pump relay. Water was pumped by two small pumps up a 50-foot slope from the Leland River through 900 feet of 2½-inch hose. The supply line was connected into the 500-gallon booster tank on the truck. At no time during the fire was the tank less than half filled.

The fire was under control at 4:10 A.M,. and the truck returned to quarters at 6:30. During the height of the fire, the pumper, under the command of Assistant Chief John Van Raalte, pumped over 300 GPM to the three lines. The performance of the new unit at its first major fire lived up to all of the expectations of the volunteers.

The commissioning of the new pumper on July 13, 1949, concluded a project which was started in the Fall of 1947. The completion of the truck body, under the direction of Chief Van Zee and Assistant Chief Van Raalte, was the result of 2,000 man-hours of work by the twelve-man volunteer group.

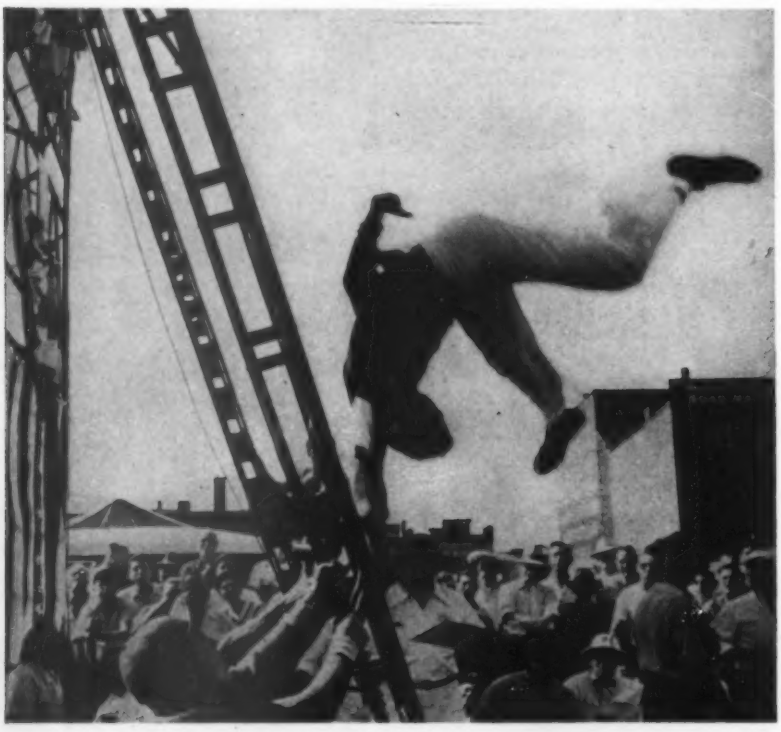
The project was begun with the purchase of a truck chassis and a front mount, two-stage, 350-GPM centrifugal pump. The entire body is welded twelve-gauge steel. The booster tank, holding 500 gallons, is connected to the pump by a three-inch supply pipe. The pump inlet was enlarged to accommodate the oversize pipe. The tank is equipped with a large opening under the booster hose reel for easy filling with buckets.

The booster hose reel contains 150 feet of high-pressure hose equipped with a fog gun and delivers water under 850 pounds pressure. The hose bed has a capacity of 1,500 feet of 2½-inch single jacket hose while side spaces hold 500 feet of 1½-inch single jacket and 40 feet of hard suction hose.

Six lighted compartments along the sides contain fire buckets, tools, seven army gas masks, extra equipment, and 165 and 300 GPM portable gasoline-driven pumps for supplying water from sources inaccessible to the pumper. There are four back-pack pumps mounted on waist-high shelves over the back wheels. The overhead ladder rack, equipped with rollers, carries a twelve-foot roof ladder, a 28-foot extension ladder, pike pole, and hose bridge. Racks inside the cab behind the driver's seat carry a first aid kit and flashlights.

Due to the very low winter temperatures at which the truck must operate, the volunteers have designed an automatic cooling system operated by the engine thermostat. It consists of coils of copper tubing placed in the booster tank and connected to the engine radiator. The antifreeze mixture flows through the engine, radiator, and tank coil without loss of the mixture. The arrangement does double duty by keeping the engine cool and the water in the booster tank above the freezing point.

The Leland Volunteer Fire Department is located in a building maintained by the county on the court house grounds in the small resort village of Leland, Michigan. It is supported entirely by contributions and a solicited membership of property owners at $3.00 per year. The department covers the entire township at no charge for runs. Additional funds are raised by a show and dance sponsored by the volunteers each summer. The department is entirely free of debt. JOHN G. SUELZER



Vamp Makes Non-Scheduled Flight at Tournament

It happened at the Syracuse, N. Y., convention of the Volunteer Firemen's Association of the State of New York. Volunteer contestant Harry Debach, 20, of the Point Pleasant, N. Y., entry, raced down a street, on the signal, and charged up a 25-foot ladder in a race against time. He's shown coming down, but not quite according to the best ladder climbing formula! He missed a top rung, flipped completely over in mid-air and landed on his feet. Injuries—a sprained ankle!

Fire Protection and Accident Prevention Year Book 1951

This is the only publication containing detailed information about public and industrial Fire Brigades and Salvage Corps in the United Kingdom which is at the same time a desk diary and complete work of reference dealing with the science of fire prevention and extinction. In addition, it includes sections devoted to Fire Brigades in the Commonwealth and Empire, in the United States and in many foreign countries. Of particular interest are the chapter on fire engineering technology and on the legal aspects of fire prevention in the United Kingdom. A comprehensive list of Government departments, institutions, societies and associations concerned with fire protection and the organization of Fire Brigades is another valuable feature of the book.

The 1951 edition includes directories of fire engineering equipment manufacturers and a detailed technical record of the appliances available to deal with normal and emergency conflagrations in the United Kingdom; sections are also devoted to industrial accident prevention and to civil defence. Published by Benn Brothers, Ltd., Bouverie House, 154 Fleet Street, London, EC 4, price 10/6 inclusive of postage, the *Year Book* is of interest to all those who are concerned with the safety of life and property.

Divorce Marshal's Office From Politics?

Recommendations of Iowa's "Little Hoover" commission that the state fire marshal's office be abolished because "it has become too much of a political plum" are combated by the state press, which claims recommendations of the Iowa Fire Safety Section of the Iowa Safety Congress, if followed, would correct the evils. The section, composed largely of men active in fire prevention and protection, submitted a hard hitting report last March on the fire marshal's office, the basis of which was to "divorce it entirely from politics."

Short Cuts and Gadgets

PLAN TO LOAD HOSE INTO FIRE APPARATUS

A device, illustrated herewith, is designed to assist in loading hose into the body of fire apparatus. The idea was conceived by Captain Hennig, of the Highland Park, Ill., Fire Department, and the following description and the drawing shown were furnished by Edward C. Hoskin, Fire Marshal of that department:

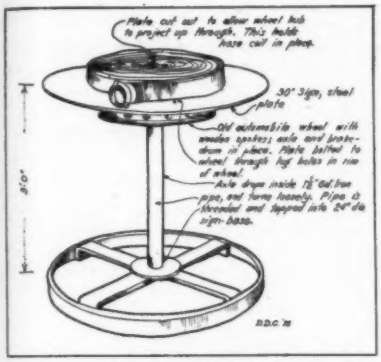


Plate cut out to allow wheel hub to project up through. This holds hose coil in place.
30" Sign wheel plate
Old automobile wheel with spokes, axle and protection cap intact. Plate bolted to wheel through lug holes in rim of wheel.
Axle drops inside 1½" std. iron pipe, and turns loosely. Pipe is threaded and tapped into 24" dia. sign base.
36"

Device to Assist in Loading Hose Into Body of Fire Apparatus

Take an oil sign standard, with 24-inch iron base and tap the center for a 1½-inch pipe. Cut threads on a piece of the pipe and screw into the base. The length of the pipe should be 36 inches. Take the round top of the oil sign and drill four ¼-inch holes in it. Then remove a rear wheel and axle from an old Chevrolet car and bolt to the sign. Place the axle in the 1½-inch pipe. If desired, place a large washer between the pipe and the flange of the axle.

This arrangement, according to Mr. Hoskin, is a time saver, as well as a man saver. It keeps the hose off of the floor and saves the outer jacket. The apparatus can be washed and the hose loaded at the same time. One man can carry the dry hose from the hose rack to the hose loader, and one man make the connections and feed hose to the man loading the hose in the body.

* * *

EXTENSION PIKE POLES

Fire Chief Henry Thomas of Hartford, Conn., reports his department is using an extension pike pole, or plaster hook, with considerable success. The tool is no different from the orthodox type, we're told, except that the shaft is threaded at the butt end so that a short extension piece—which is threaded to fit—can be screwed onto the butt, thus providing added reach.

* * *

ADJUSTABLE HYDRANT WRENCHES A MUTUAL AID "MUST"

One of the problems of successful mutual aid operations has been the lack of standardization of hose couplings. This difficulty is recognized by fire officers, generally, and is gradually being overcome by re-threading, by using adapters and other improvised methods, as described in the last issue of FIRE ENGINEERING.

One very important factor, in this connection however, which hasn't had the attention it should, is the wisdom of all companies that are or may be engaged in mutual aid operations, carrying one or more adjustable hydrant wrenches.

All-too-often a responding company finds it is unable to get into action until a wrench can be secured that will find the "foreign" hydrant to which the company must connect.

* * *

LOCATING FIRE HYDRANTS

The following is taken from the column "Between Alarms" written by Bill Thompson, prominent Nassau County, L. I., volunteer fire fighter.

"For a long time volunteer firemen have been discussing a means of locating fire hydrants quickly. Several methods have been devised but none can be considered to have solved the problem the year round.

The first move was to paint the hydrants a bright yellow because that color seems most easily distinguishable at night. Then large arrows were painted on the pavement, in some villages, with yellow paint to indicate the location of the hydrant. In the summer these are an aid if not hidden by weeds.

For the winter, when snow piles are apt to hide the hydrant or at least leave only the top exposed, a means was devised to help locate them. Poles on either side of the hydrant were painted with a band about seven feet above the ground so that the firemen rolling in on an alarm would know that there was a hydrant between the marked poles and save time looking for it.

Like most things, the real remedy for the situation is usually the simplest things. We believe we have discovered it. Observing the glare of stop notices painted with yellow paint on pavement at important intersections, we made inquiry as to why this paint was different from other yellow paint used for traffic markings. We learned the paint was no different but it was treated while still wet with a substance that caused it to glisten when the headlights of an automobile came in contact.

Now, here's the simple part. The paint is sprinkled with a fine powdered glass or fine flaked mica while still wet. It is the same treatment given to red reflector signs at the end of a street. The effect is stricking. The color stands out as soon as the light strikes it.

So, if the tops of the hydrants were painted with any color, and then sprinkeled with the powdered glass or flaked mica, a spot light on an approaching fire apparatus would surely pick it up because of the glitter, even if only a part showed. And if the same material, or any other substance that would produce a sparkle, were applied to the paint on the poles before it dried, there's no question but what it would be an aid. The effectiveness is not so much in what substance is used as long as it provides that sparkle when struck by light. It's certainly a simple process and the cost should not be great."

Readers of this Journal have already noted suggestions for identifying hydrants or their location (and other sources of water). There are a number of prepared products such as reflector buttons, "Scotch lite" mirrors and other gadgets that are available to the fire service. It looks like we've pretty well covered the suubject. Has anyone else a better idea?

* * *

The Old Timer Says—

I was out'n Iowa t'other day and dropped into chew the fat with a friend who's chief of a better'n average department. As he was showin' me around I notice he would try to work the control lever on the control nozzles mounted on the rigs we were lookin' over.

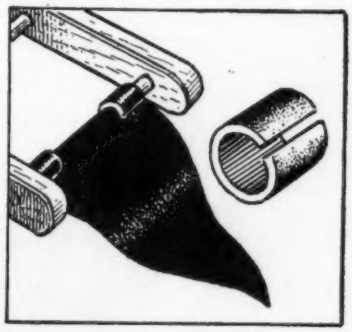
I asked him what his purpose in trying each control lever was. He said to me, "Haven't you ever had a lever on a control nozzle stick?" I couldn't remember. "Well," he said, "Up here where we may hafta use river water you could cut with a knife, it's so dirty we've gotta be darned sure all our nozzles are properly cleaned an' oiled after each use. It's got to be a sort of second nature with me to try out every control nozzle I come across when I'm goin' over a rig to be sure they've been oiled and work properly."

Mebbe he's got somethin' there.

* * *

REAR END WARNING FOR LADDER TRUCKS

A number of fire departments have followed the injunctions contained in some state laws that ladders and other objects protruding from vehicles beyond the vehicles' chassis must show a red warning flag or target.



The requirement isn't so important, perhaps, with the modern ladder trucks where no overhead or bed ladders extend much beyond the rear end of the chassis, but it has merit for use on the long overhang ladders to be found in most old city service trucks.

This idea, which is adopted from Popular Mechanics, permits quick attachment or detachment of a red warning flag at the end rung of the longest ladder in the ladder body. All that are required are two sections of solid rubber hose. One or two turns of the flag are first wrapped around the run, and then the short hose sections, slit lengthwise, are forced over the flag and rung.

FALSE ALARMS

First Fireman: "You don't look so good, old man. What's the trouble?"

Second Fireman: "I got domestic trouble."

First Fireman: "But, Harry, you always said your wife was a pearl."

Second Fireman: "Yeah, that she is. It's the mother-of-pearl that makes the trouble."

Ambitions

Three small boys were sitting on the curb. One was playing with an airplane, one was playing with a fire engine and one was reading Esquire.

A kindly old gentleman approached and asked them what they wanted to be when they grew up.

The first replied that he wanted to pilot a B-29.

The second wanted to be a fireman.

The third, looking up from his magazine, replied, "Aw, it isn't important, I just want to grow up."

Laid Out

At six o'clock she laid out his dinner suit, at seven she laid out his evening clothes, at eleven she laid out his pajamas, and at three o'clock he came home and she laid him out.

Teamwork

A man and his wife were engaged in a bitter quarrel, when the woman motioned her husband to the window and pointed down the road. Two horses straining on either side of a long, sturdy tongue were drawing a wagon loaded with wood up the hill.

"Why can't we pull together like that?" she demanded.

"Well," rejoined the husband, with a wink, "if we had only one tongue between us we could!"

The congregation of a village church read, with amazement, this announcement in its weekly bulletin: "The ladies of the church have cast off clothing of all kinds. They may be seen in the basement of the church any afternoon this week."

"Hello. Is this the City Bridge Department?"

"Yes, what can we do for you?"

"How many points do you get for a small slam?"

Matrimony puts an end to more petting than all the park police put together.

"I Discovered the Blaze at Eight O'Clock,
And Fought It with All My Endurance.
The Fire Consumed My Entire Stock,
But I Luckily Carry Insurance."

"I married a man in the fire department."

"A volunteer?"

"No, my Pa made him."

The difference between amnesia and magnesia is that the fellow with amnesia can't remember where he's going.

"Those are my grandmother's ashes over there."

"Oh, so the poor soul has passed on?"

"No, she's too lazy to look for an ashtray."

A gold-digger is a woman—after all.

Fox Hunt

The members of the Tannenbaum Country Club decided to show the world how fashionable they had become by staging a fox hunt. Every member, it was agreed, would supply one hunting dog, and the steward was dispatched to locate a fox. On the morning of the great event, the self-conscious members gathered in resplendent red jackets, and set off for the chase, while the president and vice-president posted themselves on the clubhouse veranda to follow the action through binoculars. What nobody knew was that Member Finkowitz had unwittingly contributed a bitch in heat. When the chase had been in progress for a half hour the vice-president asked anxiously, "Nu? How is it going?" The president put down the binoculars and said, "I can't understand it. The fox is running fifth."

Speak Distinctly

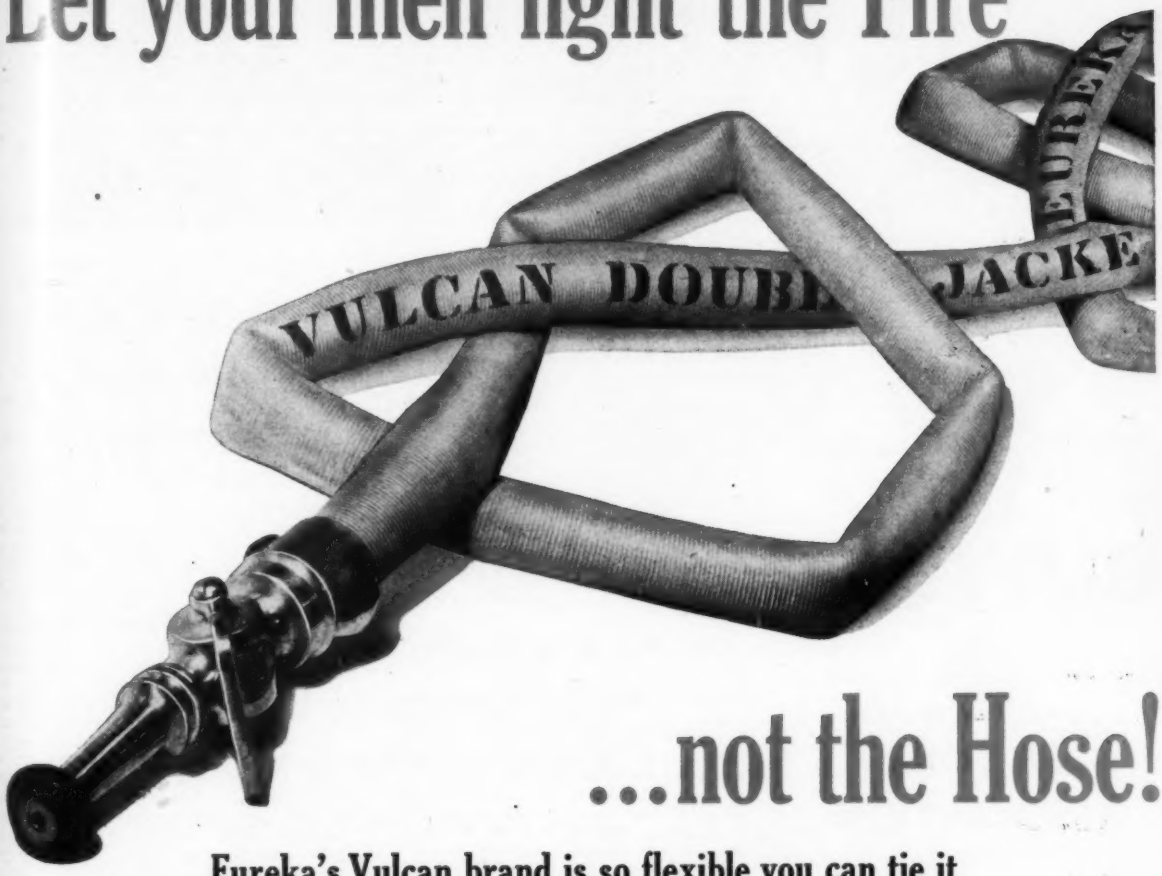
"They must have been at the Zoo," said Mrs. W., "for I heard her speak of a trained deer." "My goodness," laughed Mrs. X., "your hearing is certainly not good. They were talking about a trip, and she said, 'Find out about the train, dear.'" "Well, you are both wrong," said Mrs. Y. "I was close to them and am sure they were talking about music, for I heard her speak of a trained ear." In the midst of the argument the lady herself appeared. When they appealed to her, she said, "Well, well, this must be the worst hall any one ever tried to speak in. I had just returned from the country and was asking my husband whether it rained here last night." —*Recorder*

A man with a nose as red as a tail light was arrested for selling whiskey without a license. He came up before the jury, and a clever lawyer was defending him. He put the man on the witness stand.

After a dramatic pause the lawyer said: "Look carefully at the man." Then he paused again for a long time.

Now, ladies and gentlemen of the jury. You've looked carefully at the defendant. Can you sit there in the jury box and believe that if he had a quart of whiskey he would sell it?"

Let your men fight the Fire



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Eureka's hose experts have built Vulcan with a jacket of cords that are lighter, smaller than those in standard hose, *without* sacrificing resistance to bursting. As in other famous brands of Eureka Fire Hose, Vulcan's Balanced Weave and Controlled Curing eliminate excessive stretch and warp. Exclusive Formula "X" provides mildew-proofing.

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For Practical Discussion of Current Fire Department and Fire Management Problems

FIRE DEPARTMENT TRAFFIC PROBLEMS

THE discussion in this Round Table is a continuation of that which appeared in the January issue of FIRE ENGINEERING on fire department traffic problems.

The generous response from our readers made it necessary to carry the discussion over to this issue and to the March issue as well.

Readers are invited to send in their comments on this subject which is described in the box below, to Round Table Editor, FIRE ENGINEERING, 24 West 40th Street, New York 18, N. Y.

Discussion of the Question

Edward E. Wischer, Chief, Milwaukee, Wis.: Fire apparatus may use any thoroughfare as the shortest means of getting to a fire, and is granted such authority by state and city laws.

Apparatus speed is not limited by state or city laws — but department regulations control:

Boat Hose Trucks & Water Tower.	15 M.P.H.
Aerial Ladder Trucks	25 M.P.H.
Pumping Engines.	30 M.P.H.
City Service Ladder Trucks	30 M.P.H.
Rescue Squads (responding to fires)	30 M.P.H.
Rescue Squads (other emergency calls)	60 M.P.H.
All other apparatus	No limit (conditions governing)

Responding to alarms or emergency calls—state and city laws give right of way to emergency vehicles. Department apparatus protected by above laws, as well as for public liability (life and property) damages by insurance company.

Department rules, however, require that operators of apparatus exercise all possible caution to avoid accidents —an on attempting to take right of way at controlled intersections they are to have apparatus under control so that it can be stopped if necessary to avoid accidents. Department investigations are conducted of accidents, and if violations of department rules are found for either driver or officer, or both, they are subject to discipline under department rules. These investigations are entirely separate and have no bearing on legal rights under state and city laws, where right of way must be yielded to emergency apparatus responding to alarm.

Certain streets are designated for use by the companies in responding to alarms beyond their immediate vicinities. These streets are also listed with the Department of Public Works for early snow removal to assist in responses. Police assist if in the vicinity of alarm, with a police squad assigned to respond to each alarm by police radio dispatcher.

Parking is restricted on some of our narrower streets — and plans have been formulated for parking on one side of the street on all narrow streets, wherever possible. In most instances, so called "fire lanes" are not narrow streets and are therefore not affected by parking.

Ernest L. Neal, Chief, Waltham, Mass.: In Massachusetts the state law governs the right of fire apparatus. "Sec. 7B. Acts of 1934, 382. A driver of fire apparatus while going to a fire or responding to an alarm or in an emergency and while in performance of a public duty, may drive such vehicle at a speed in excess of the applicable speed limit, if he exercises due regard under the circumstances for the safety of persons and property. He may drive such vehicle through an intersection of ways contrary to any traffic signs or signals regulating traffic at such intersection if he first brings such vehicle to a

HERE IS THE TOPIC

1. **Is fire apparatus given the right of way in heavy traffic areas, in passing red lights and going down one-way streets against traffic as the shortest means of getting to the fire?**
2. **Is the rate of speed regulated upon going to a fire? If so, what speed?**
3. **Who is responsible in the event an accident does occur? How is the driver protected?**
4. **Do you have fire lanes and what protection do you get from the police department when responding to fires in these fire lanes?**
5. **Is parking restricted to one side on said fire lanes, or is parking permitted on both sides?**

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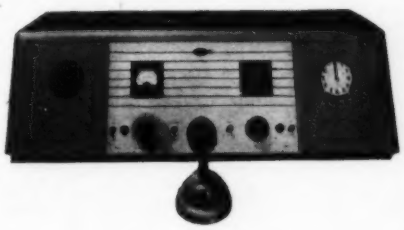

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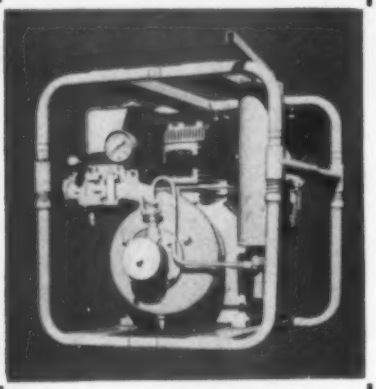
Has YOUR Fire Truck A HALE TYPE FZZ

". . . All Fire Trucks Should Have One or More" . . . Says Fire Chief from Missouri



Above — This frame-mounted FZZ (with carrying handles turned in) can be easily carried to source of water which truck cannot reach, for refilling booster tank or for fighting fire direct. Unit is also available mounted on two truck-type wheels or on rubber-cushioned steel channels. **Note:** Discharge Adapter can be supplied for use with 2½" hose.

Chief R. M. Wilson of Monroe City, Missouri, suggests that all Fire Trucks should have a Hale type FZZ portable pumping unit . . . He writes: "I want to tell you how pleased I am with this FZZ pump. We received it May 27th. On May 29th I was compelled to use it during a bad rain storm as our larger pumper was unable to reach water supply. We put the little pump at a pond, used 500 ft. 1½" hose layout, and saved this farmer almost $2,000.00. **The FZZ gave a nice fire stream. The motor started on the first pull in a downpour of rain. Not one time did it stop. We used it for almost 2 hours. Had not we had this portable pump, there was no way we could put out this fire. I think all fire trucks for Town or Country should have one or more."**

Above—FZZ Pumping solid stream and fog.

With a ready-for-use Hale FZZ you can fight fires not only with solid stream and/or fog, but also with foam—a valuable weapon against gasoline truck fires.

The easily portable FZZ can be mounted in any apparatus, making it possible to fight fires while apparatus is in motion, using booster tank for source of water. CAPACITY 60 G.P.M. at 90 lbs. pressure; 150 G.P.M. at 30 lbs. pressure; ample reserve capacity.

Ask for demonstration; no obligation.

Write today for FZZ FOLDER to:

Hale Fire Pump Company

CONSHOHOCKEN, PA.

Fire Pumps in All Standard Capacities

full stop and then proceeds with caution and due regard for the safety of persons and property, unless otherwise directed by a police officer at that intersection."

This law was the result of many smashes and was agreed on by fire department officials.

The speed limit in this department is 35 miles per hour.

The driver and the officer in charge are equally responsible. The driver is under the direction of the officer at all times. The city under the law may reimburse for expense to the members of the department. This city has always defended the members in all court action.

We do have fire lanes. Our main lines are controlled by traffic lights. These are set green for the fire department for either direction. The lights are set from the fire-alarm office. Police enroute direct traffic to the side of the road to a stop which is required by state law. All vehicles must pull to the side of the street and stop whenever fire-apparatus approaches.

Parking is allowed on both sides of all of our main streets; a short pass from the central station to the first main street has one side parking.

C. M. Johnson, Chief, Knoxville, Tenn.: Fire apparatus in Knoxville is given the right of way over traffic lights and one-way streets against traffic.

The maximum speed regulations going to fires is 35 miles an hour.

Under the law in the City of Knoxville, neither the city nor the driver of the fire apparatus is held responsible for damage done to persons or property while responding to an alarm, unless it is proven that the driver of the fire apparatus was driving recklessly.

We do have fire lanes in Knoxville; the police department when on the scene clears traffic.

Parking is restricted on one side of streets where fire lanes are established.

E. P. Feaster, Chief, Lincoln, Neb.: There is no restriction against the fire department in passing red lights and going down one-way streets in Lincoln. By city ordinance the fire department has the right of way when responding to emergency calls. In busy intersections police stop traffic and apparatus drivers use added precaution while running through red lights.

The speed of fire apparatus is regulated by the chief of the fire department when responding to fires. At the present time our speed limit is not over 20 miles per hour in congested and business districts and not over 35 miles per hour at anytime.

The fire department is protected by city ordnance which says they are not responsible in case of accident while responding to emergency calls. The driver is protected under the same ordnance.

We do not have any fire lanes in the city of Lincoln.

Whit Murphy, Acting Chief, West Memphis, Ark.: Five major trunk highways, routed over four-lane street, pass right through the center of our city, constituting quite a serious problem in our responding to fire alarms.

Traffic checks reveal that up to 24,000 vehicles per day traverse this main thoroughfare—which also must be used by apparatus and firemen's private cars in responding to all alarms. There are no parallel through streets.

Our city has no regular traffic lights for the simple reason that to intermittently stop traffic, flowing at the rate of 17 cars per minute at 30 m.p.h. (more at peak periods), serious traffic jams would be a continuity, to say nothing of the accident hazard.

So, in responding to alarms we have to rely largely on luck and our ability to out-bluff motorists to gain the right-of-way. We do have sirens and neon "STOP-FIRE" signs at two busy intersections, but they are not too effective. All apparatus and firemen's cars are equipped with siren and conspicuous red lights. A common practice is to get over in the third lane. This has a tendency to cause opposing traffic to yield the right-of-way faster than it could be gained by waiting for all vehicles traveling in our same direction to move over. All men are repeatedly instructed to be extremely cautious. So far, no head-on collisions have occurred.

Our speed is regulated, by a department rule, not to exceed 50 m.p.h. However, some of the men do not always adhere strictly to it.

In the past, efforts have been made to place responsibility for accidents on drivers of the apparatus, or in instances where men responding in their private cars were involved—on them. However, since better relations between the police and fire departments have come about, responsibility has been shifted to civilians in most cases. Actually, apparatus drivers in Arkansas are protected by state law.

We have no fire lane streets, designated as such, but our police department, handicapped as it is by shortages of men and cars, lends every assistance possible to clear the "fire streets" of all unnecessary traffic to prevent the ever present onrush of spectators, following behind the apparatus, from clogging up the streets.

Certain streets in the high value districts have been designated as "one side only parking" streets and this rule is strictly enforced by the police department.

Frank L. Veasley, Chief, Cleveland Heights, Ohio: According to our traffic code, fire apparatus has the right of way on the highway, and must slow down when approaching a red or stop signal, but may proceed cautiously past such red or stop sign with due regard for safety of others. We do not have any one-way streets so I am not in a position to answer this question.

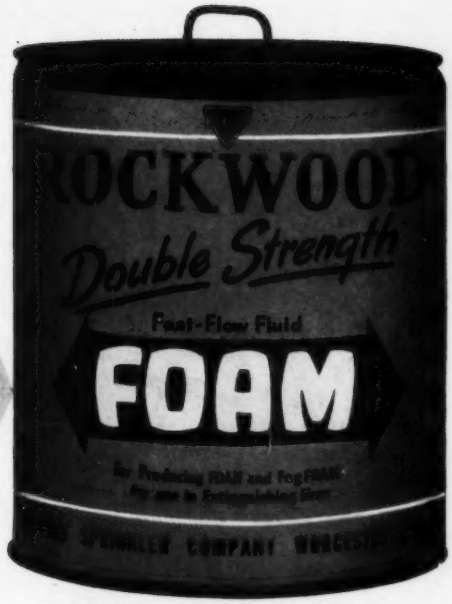
Prima facie speed regulations do not apply to fire apparatus. This provision however, does not relieve the driver from the duty to drive with due regard for the safety of all persons using the streets or highway. In addition, fire department regulations require the driver to have the apparatus under full control at all times

A New Double Strength Fast-Flow Fluid FOAM

For Fighting Flammable Liquid Fires

Here is an outstanding new FOAM Liquid to go with Rockwood's advanced type of FogFOAM and FOAM Nozzles for fighting fires in gasoline and other similar flammable liquids.

This new FOAM is now freely available for use with hose line nozzles and permanently piped FogFOAM and FOAM installations. It will give you many advantages over ordinary FOAM Liquid or powder foams.



Rockwood Regular FOAM — the type previously supplied — is still available for use with Rockwood devices.

- MORE FLUID
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- Faster Extinguishment of Gasoline Fires.
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- Can be Used with Latest Types of FogFOAM and FOAM Nozzles in Hose Lines or Fixed Piping Systems where proper Proportioning is provided.
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F F F

Portable Fire Protection Division

ROCKWOOD

ROCKWOOD SPRINKLER COMPANY

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especially at crossings and intersections.

I might add for your information, apparatus when returning to quarters shall obey all traffic regulations and shall not exceed a speed of 25 miles per hour, and only the bell shall be used as a warning signal.

In substance, under the state laws of Ohio, the municipality is liable by wrongful act caused by the negligence of its employees while engaged in the operation of any vehicle upon any public highway, provided, it shall be a full defense if accident is caused while answering any emergency alarm. Provided further, a fireman shall not be personally liable for damages while responding to an emergency call.

We do not have the so-called "fire lanes" in Cleveland Heights, but we receive full cooperation from the police department in clearing streets or intersections. A police cruiser is dispatched on every alarm of fire.

We have local traffic ordinances restricting parking to one side of the narrower streets. In our apartment house districts parking is restricted to one side of the street.

J. F. Finnegan, Chief Richmond, Va.: Fire apparatus is given the right of way in heavy traffic, in passing red lights and on one-way streets.

Rate of speed is regulated. It is required to be under control and handled in a safe manner. No specific maximum speed is stipulated.

In the event of an accident it is presumed that the operator of the other vehicle is responsible in failing to give the right of way to an emergency vehicle. The operator of the fire apparatus is liable only when proof of negligence is established. The city also has liability and property damage insurance on all fire apparatus. The operator on becoming incapacitated from an accident is put on full pay pension.

We have fire lanes and the police are very strict in keeping these lanes free from parking. Police also answer all calls for fire to assist in the handling of traffic.

We have fire lanes where both types of parking are permitted, depending on the width of the street and the traffic congestion.

William D. Thomas, Chief, Binghamton, N. Y.: In response to an alarm of fire or other emergencies our fire apparatus is given the right of way against traffic where such intersection is guarded by a police officer.

The rate of speed is not regulated when responding to a fire or other emergencies. However, where traffic is controlled by a signal light and the intersection is not guarded by a police officer the company commander shall see that the apparatus is brought to a stop and shifted to a lower gear and is not to proceed until the intersection is clear.

In the event an accident occurs the driver is responsible. The driver is protected by accident insurance coverage carried by the City of Binghamton on all of our motor vehicle equipment. Also the General Municipal Law of the State of New York makes a city absolutely liable to the extent that it shall have harmless all firemen in the operation of a vehicle upon the public street while in the discharge of his duties as a fireman.

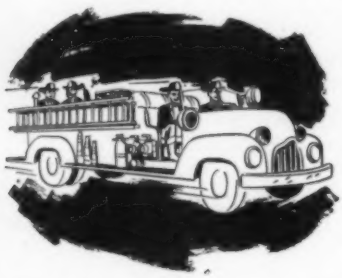
We do not have any fire lanes.

Frank S. Sandeman, Chief, Long Beach, Cal.: Fire apparatus is given the right-of-way in heavy traffic areas. However, the hazards created by the confused, uninformed or careless motorist present difficult problems for our drivers. There is also the problem of the hard-of-hearing and those who drive with closed windows and do not hear our warning sirens. As Long Beach streets are fairly wide, we have not yet resorted to one-way traffic regulations.

Our department orders limit the maximum speed of apparatus to the following: pumpers and ladder trucks, 35 m.p.h.—squads and ambulances, 40 m.p.h.—consistent with traffic conditions enroute to the scene of emergency. Our drivers are instructed to bring the apparatus to a complete stop, if necessary, to avoid an accident. The California Vehicle Code so states:

"No member of any police or fire department maintained by a county, incorporated or unincorporated city, town or district, and no member of the California Highway Patrol or employee of Division of Forestry, is liable for civil damages on account of personal injury to or death of any person or damage to property resulting from the operation in the line of duty, of an authorized emergency vehicle while responding to an emergency call or when in the immediate pursuit of an actual or suspected violator of the law, or when responding to but not upon

why KIM Hotstart electric pre-heater *pulls down* high winter costs



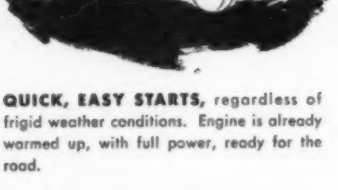
QUICK, EASY STARTS, regardless of frigid weather conditions. Engine is already warmed up, with full power, ready for the road.

4 Models, Quickly Installed

On trucks, tractors, autos or stationary engines—diesel or gas. Thousands of users from coast to coast.

VIA ELECTRIC PLUG-IN, KIM draws cold water from engine, heats it, forces it back into engine at another point.

KIM Hotstart electric pre-heaters are sold and installed by International Harvester and Mack Truck dealers and by leading automotive suppliers. Get the jump on cold weather trouble by seeing them for detailed information, or fill in and mail the coupon.



WARM ENGINES END NEED FOR HEATED TERMINALS. KIM does not interfere with circulating systems or use of anti-freeze.

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Please send literature, prices, name of local KIM dealer.

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returning from a fire alarm or emergency call."

Fire department vehicles responding to an alarm use boulevard or arterial stop streets as much as possible. No fire lanes are set up, such as those with warning signals each block, etc. Police department cooperation is excellent. Police are notified of fire apparatus response by inter-communication system from the fire alarm switchboard to the police dispatchers, who, in turn, notify all police cars by radio. Those police cars which are in the district respond by designation and control traffic at the scene of the emergency. Police and fire departments each operate their own radio systems. This cooperation has been greatly responsible for our present safety record.

Parking is permitted on both sides of the street. Diagonal parking is not permitted in the main business areas of the city.

C. L. Cox, Chief, Durham, N. C.: Fire apparatus has the right of way in all traffic. In the business district traffic signal lights are controlled by watchman at fire headquarters. Upon receipt of alarm which necessitates fire vehicles traveling through this district he switches control button controlling the lights on the route the vehicles will travel. The action of the traffic signal lights is an on and off flashing of RED signal ONLY. There are only two one-way streets in our city and they are only one block in length. This is not a problem. If necessary, we would drive fire vehicles against traffic.

We have very narrow streets in our city. Due to the increased number of all types of vehicles now compared to even ten years ago, a congested condition exists on nearly all streets, which has created a serious problem. Our men are instructed to drive at all times at a speed consistent with good judgment governed by the conditions which exist. Very often apparatus has to be completely stopped to allow traffic to make room for a truck to be driven through.

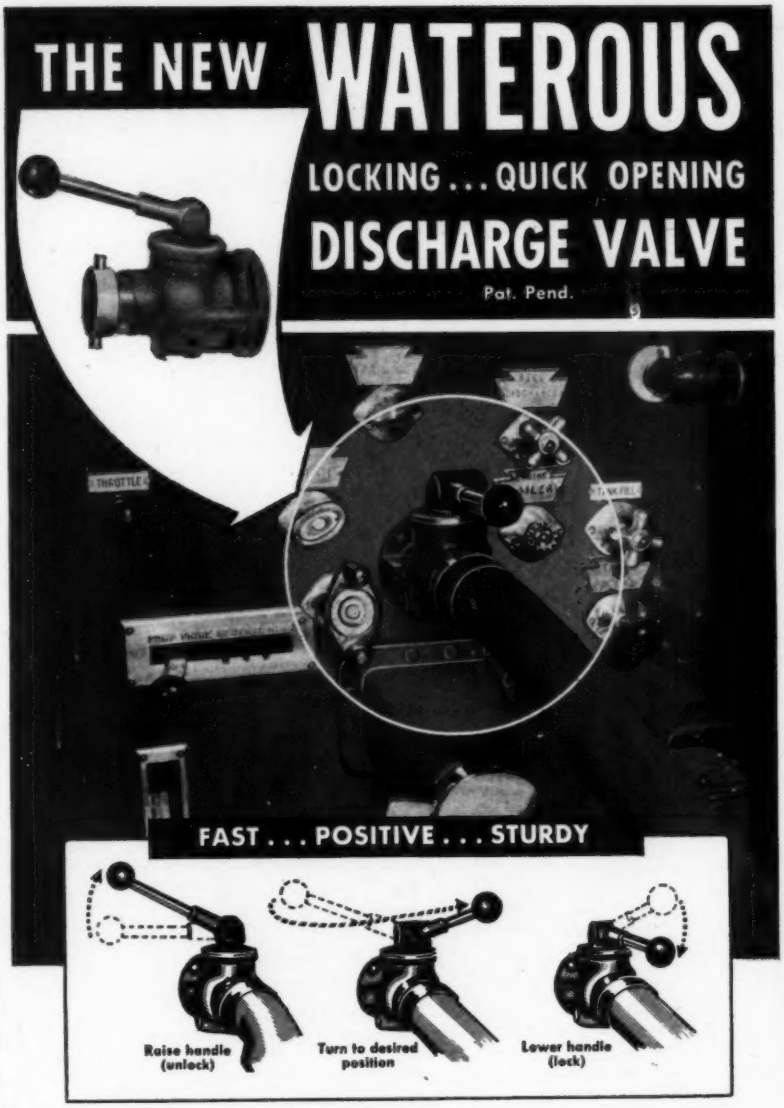
A driver would be responsible for an accident only if it was proven without a doubt that he was driving in a reckless and careless manner. This would be a most unusual case.

Our police are most cooperative in helping fire vehicles through traffic and when operating at fires. At least one patrol car with two officers responds to each building fire. If more help is needed, the first officers on the scene request assistance and this is done.

Louisville to Supply Outside Protection

Fire protection for industrial plants located outside the City of Louisville, Ky., is planned in a measure before the City's Board of Aldermen. Under the new setup, contracts between the city and industrial plants would provide for payment of $100 for each piece of equipment sent to a fire for the first hour, $75 for each additional hour and $25 extra if a battalion chief is sent.

Each plant, in addition, would pay an assessment of 26 cents on each $100 valuation of land, plant and machinery as appraised by the county tax receiver.



This valve is the end result of more than ten years of "*design and try*". A wide variety of experimental valves were tried out under actual operating conditions. Different valves were placed on test and comparisons made. The new WATEROUS valve works easily under all operating pressures; it locks and stays in any position. It is tight against water or vacuum.

STURDY AND DEPENDABLE—a worthy addition to the WATEROUS line.

WRITE TODAY for complete information on the WATEROUS DISCHARGE VALVE. Also ask for catalog F-247-R, an informative booklet to help you select the right WATEROUS FIRE PUMP.

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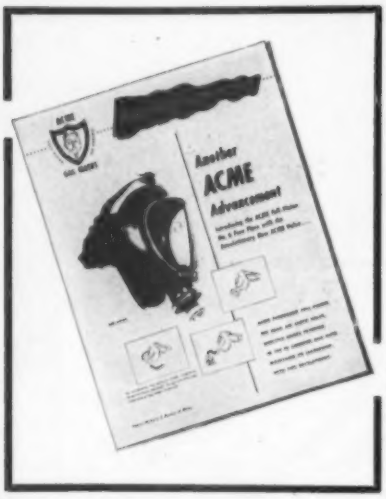
80 EAST FILLMORE AVE.
ST. PAUL 1, MINNESOTA

New ACME GAS MASK

Provides Chin-Style Chest-Style or Hose-Mask Protection with ONE FACE PIECE



Write for illustrated bulletin describing this revolutionary development which simplifies your gas mask equipment. Get the full story today.

ACME PROTECTION EQUIPMENT COMPANY
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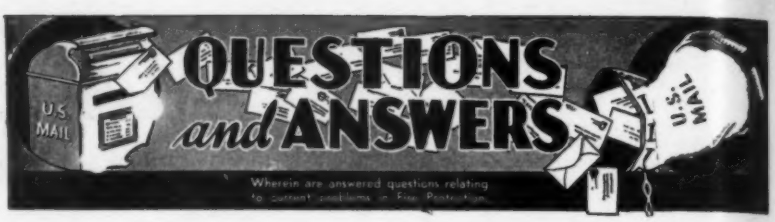
CHICAGO 12, ILLINOIS



Procedure for Handling Ruptured Gas Main Leak

To the Editor:

Would you please tell me the procedure you would recommend at the following fire:

Men were blasting next door to the fire station for a foundation. The dynamite was placed near a 12-inch illuminating gas main. As the blast went off, a sheet of flame at least 50 feet high shot into the air.

We, that is, a ladder company and a 1,000 GPM pumper, were called to the scene. As I was in charge of the ladder company I detailed my men to help the pumper company stretch their lines.

The gas line that was ruptured by the blast, as I said before, was 12 inches in diameter. There was no main shut off in this line.

I have drawn a rough sketch to give you some idea of the layout of the fire scene. M. D. Y.

Answer: It is not quite clear from your diagram and letter just how severe the exposure hazards were at the scene of the break and fire. If there was extensive life and/or property hazard, naturally the first step would be to summon reinforcements.

Judging from the information you have given us, we believe your first action should be to have the gas company notified of the break. At the same time, lines should be stretched to protect all exposures. No attempt should be made to extinguish the fire with hose streams or any other means if facilities were not available for shutting off the gas supply. Under the conditions outlined in your problem it would be better to permit the gas to continue to burn but preventing its ignition of property by wetting down all the exposures. This action would be better than flooding the area with gas and thereby running the risk of a serious explosion, should the gas flash.

By extinguishing the flame, without cutting off the flow of gas, you would multiply the dangers as the latent vapors would be carried down wind to threaten a wide area. In this case fast work would have to be done to evacuate persons over a wide area. There would be danger both from fire and from asphyxiation.

Following notification of the gas company and placing protective hose streams (or fog if you had sufficiently large fog nozzles) you could then request the police to establish the proper cordon and keep the exposures wet down until the gas company arrived. If you have fog nozzles, a strong fog pattern might have been employed to protect the gas company men in the event they had to go into the excavation. Some gas companies fight such breaks with CO_2 and try to 'cover' their men with water-fog. Fog may be able to drive the gas back, in the desired direction, permitting gas company representatives to work. Even after gas may be shut off, there may be some fumes and some fire, under certain conditions. Here a good pattern of water fog is good protection against flash-back and flareup.

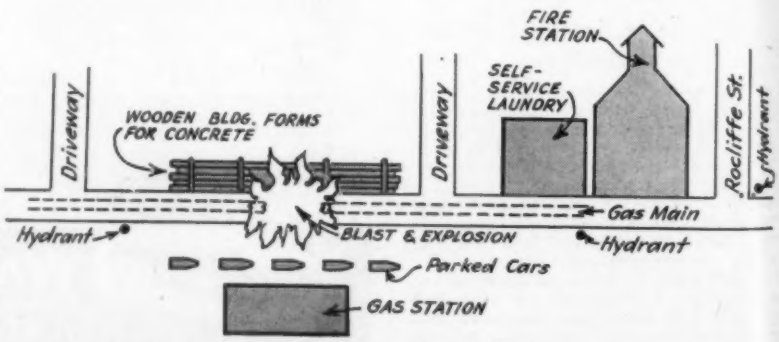
We hope this is in line with your own reasoning. We might add that we have consulted representatives of some of the largest gas companies on this question and they generally concur with our recommendation.

Operation of Deluge Nozzle

To the Editor:

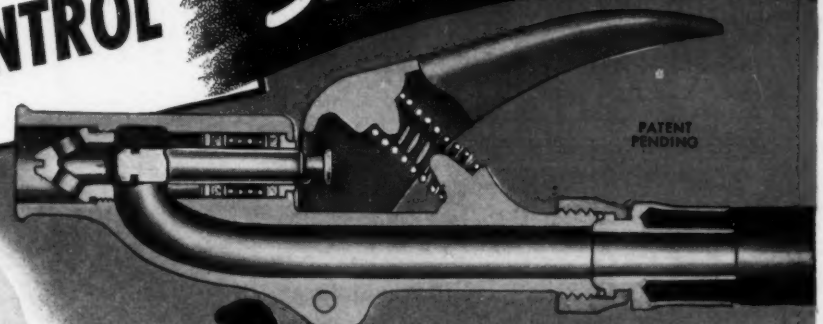
We would like to know exactly what happens when water is pumped under high pressure through a portable deluge nozzle.

1. Why does it remain stationary, unattended, when in operation?
2. How is the terrific back pressure "spent?"
3. Where, or on what part of the nozzle, is the back pressure exerted?
4. Is the back pressure exerted downward, toward the ground?
5. Is it possible to pick up and



FASTER . . . MORE EFFECTIVE FIRE CONTROL

WITH THE ANSUL *Stream Pattern*



. . . *plus* BETTER HEAT-SHIELD PROTECTION

EXCLUSIVE FEATURES

- Water-tight construction.
- Provides a modified cone-shaped stream pattern without hole in the center of the stream.
- Each nozzle gas pressure tested after assembly.
- Special spring loaded packing to insure lasting water-tightness.
- Designed for use by inexperienced operators.
- Low velocity, more effective stream of dry chemical.

why Advertise the Nozzle! . . .

. . . because the **nozzle** on your ANSUL Dry Chemical Fire Extinguisher is **water-tight** . . . it **won't** become inoperative due to corrosion or caking of dry chemical within the working parts . . . the most inexperienced man in your plant **can use the ANSUL extinguisher effectively . . . *and only Ansul has a nozzle*** to meet all of these requirements!

If your hazards require special long range straight stream nozzles, you can get Ansul Extinguishers equipped with these nozzles at no extra cost. With Ansul Dry Chemical Fire Extinguishing Equipment you have not only the best fire protection but also a choice of models and designs to meet your requirements.

Send for File No. 654. You will receive our latest catalog, a Periodic Inspection Record Chart, "Fundamentals of Fire Extinguishment" and information about Ansul Dry Chemical Piped Systems for automatic protection.

ANSUL CHEMICAL COMPANY

FIRE EXTINGUISHER DIVISION

MARINETTE, WISCONSIN

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"PLUS-FIFTY" DRY CHEMICAL IS MORE DEPENDABLE *ALL-WAYS!*

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carry a portable deluge nozzle without first shutting it off, or would there be a strong back pressure exerted downward toward the ground?

It doesn't seem logical to me that a great amount of back pressure would be exerted downward, because if there were, and someone accidentally kicked into or stumbled over the hose lines attached to the portable deluge nozzle (while it was in operation and unattended) this disturbance might start the nozzle into a slide or skid across the ground or pavement.

C. S.

Answer: Your questions will be answered in the order in which you give them:

1. The portable deluge nozzle when in operation remains stationary, and unattended, because the reaction forces the base of the unit against the ground. The higher the angle at which the nozzle is directed, the greater the pressure against the ground and therefore the greater stability of the nozzle.

2. The back pressure, or reaction, is not "spent," but is exerted against the ground through the unit.

3. As indicated above, the reaction from the nozzle is exerted through the base of the unit against the ground. Were it not for the anti-skid characteristics of the base of the deluge set, the nozzle reaction might force the unit along the ground.

4. The reaction or back pressure is exerted along the line of the nozzle. This force is resolved into two separate forces, one vertical to the ground, and the other horizontal to the ground.

For example, if a 2-inch nozzle at 100 pounds pressure is employed, the reaction will be 600 pounds. This 600 pounds is directed through the nozzle to the base. But this 600-pound reaction, or force, can be resolved into two separate forces, one perpendicular to the base of the unit and the other parallel to the ground. Where the angle of elevation of the nozzle is 45 degrees, each of these components of the 600-pound reaction will be 424 pounds.

5. It would be extremely dangerous to attempt to carry a portable deluge nozzle while the nozzle is in operation. It is absolutely essential that it be first shut off. It would be difficult if the nozzle were large and the nozzle pressure high to move the unit in the first place. Then there would be the possibility of the unit tipping and "getting away."

Incidentally, the lower the angle of the nozzle to the ground, the greater will be the tendency to push the unit along the ground backwards. This is because the vertical component will be much less and the horizontal component much greater.

an unbeatable combination

CHAMPION PUMP and H & H STREAMLINED FIRE APPARATUS

HERE is the type of new pumper Woodbury Heights, N. J., needed for modern up-to-the-minute fire control. Perhaps the same job, with variations to fit YOUR needs, will be the answer to YOUR problems. This is a 500 GPM job with 2-stage Champion Pump—completely controlled from operating panel—carries 600 gals. of water—2 electric hose reels with 200 feet of booster hose on each. Carries 1200 ft. of 2½ inch and 75 feet of 1½ inch—together with Indian Tanks, C-O-TWO extinguishers. Plenty of room for roof and extension ladder and compartments for all necessary tools. How closely does this job fill your needs? Can we tell you more about it—possibly layout a job to completely fill your needs? Write—

SPECIALIZING IN MODERN WATER CARRYING FIRE APPARATUS THAT DOESN'T LOOK LIKE A TANK TRUCK

H&H TRUCK TANK Co. Inc.
725 TONNELE AVE.
JERSEY CITY, N. J.

Fire Losses for 1950

Fires destroyed an estimated $688,460,000 in American property during 1950, it was announced by Lewis A. Vincent, general manager of the National Board of Fire Underwriters.

During December, 1950, fire losses totalled an estimated $66,820,000. This represented a decrease of .7 per cent below losses for December, 1949, and an increase of 19.8 per cent over losses in November, 1950.

Estimated monthly fire losses for 1950 were:

January	$58,823,000
February	58,340,000
March	72,468,000
April	61,605,000
May	58,765,000
June	57,116,000
July	52,980,000
August	49,878,000
September	45,922,000
October	49,953,000
November	55,790,000
December	66,820,000

Charlotte Seeks Improvements

Need for more fire stations and more fire-fighting personnel and equipment to keep pace with the rapid growth of Charlotte, N. C., is voiced by Fire Chief Donald S. Charles in an urgent appeal to the heads of the city government.

Reporting that Charlotte firemen answered 116 alarms in a period of 120 hours, starting Dec. 22nd, Chief Charles said that some of the blazes occurred at the same time in widely separated areas, and that the engine units were heavily rushed in covering the fires.

The chief's statement followed another discussion in which he and Captain Henry Horton of the Charlotte Life Saving and First Aid Crew, outlined the needs for some permanent arrangement to continue the life saving efforts.

Captain Horton said that $6,000 is needed this year if the life saving crew is to continue its work. Military calls have hit hard at the crew's manpower

and only 16 men are left for active duty in a squad that should be expanded to at least 60 active members and 30 trained reserves. In addition to the voluntary crew, Captain Horton has proposed that a full-time life saving unit be set up within the Charlotte Fire Department. Chief Charles agreed, and said at least eight additional men would be required, four to a shift, plus the necessary equipment.

D. G. SPENCER

Convention Dates

Mar. 19-21—ILLINOIS ASSOCIATION OF FIRE PROTECTION DISTRICTS. Annual meeting, Peoria, Ill. Executive Director, L. H. Glens, 532 South Fourth Street, Springfield, Ill.

March 21—FIRE CHIEFS EMERGENCY PLAN OF WESTCHESTER COUNTY. Monthly meeting. For information contact Chief John S. A. McAuliffee, Croton-on-Hudson, N. Y., President.

March 21—FIRE CHIEFS EMERGENCY PLAN OF FAIRFIELD COUNTY. Monthly meeting. For information contact George B. French, Trumbull, Conn., Secretary.

Apr. 3-6—GREATER NEW YORK SAFETY COUNCIL. Annual meeting, Hotels Statler and Governor Clinton, New York City. Secretary, Cyril Ainsworth, Lincoln Building, 60 East 42nd Street, New York 17, N. Y.

April 18—FIRE CHIEFS EMERGENCY PLAN OF WESTCHESTER COUNTY. Monthly meeting. For information contact Chief John S. A. McAuliffe, Croton-on-Hudson, N. Y., President.

Apr. 20-27—ARSON INVESTIGATORS' SEMINAR. Annual meeting, Purdue University, Lafayette, Ind. For information, contact Francis Hartman, Department of Fireman Training, Public Safety Institute, Purdue University, Lafayette, Ind.

April 25—FIRE CHIEFS EMERGENCY PLAN OF FAIRFIELD COUNTY. Monthly meeting. For information contact George B. French, Trumbull, Conn., Secretary.

Apr. 30-May 3—NORTHWEST FIRE SCHOOL. Annual meeting, Saint Paul, Minn. Director, Leonard C. Lund, Deputy Commissioner, Insurance Division, Department of Commerce, State Office Building, Saint Paul 1, Minn.

May 16—FIRE CHIEFS EMERGENCY PLAN OF WESTCHESTER COUNTY. Monthly meeting. For information contact Chief John S. A. McAuliffe, Croton-on-Hudson, N. Y., President.

May 23—FIRE CHIEFS EMERGENCY PLAN OF FAIRFIELD COUNTY. Annual meeting. For information contact George B. French, Trumbull, Conn., Secretary.

June 11-13—TENNESSEE FIREMEN'S ASSOCIATION. Annual meeting, Memphis, Tenn. Secretary, L. E. Potts, c/o Fire Derpartment, Nashville, Tenn.

June 19-22—NEW ENGLAND ASSOCIATION OF FIRE CHIEFS. Annual meeting, The Wentworth by-the-Sea, Portsmouth, N. H. Secretary-Treasurer, John W. O'Hearn, 22 Mt. Auburn Street, Watertown 72, Mass.

June 20—FIRE CHIEFS EMERGENCY PLAN OF WESTCHESTER COUNTY. Monthly meeting. For information contact Chief John S. A. McAuliffe, Croton-on-Hudson, President.

June 20-22—MARYLAND STATE FIREMEN'S ASSOCIATION. Annual meeting, Cumberland, Md. Secretary B. R. Benson, 303 Bosley Avenue, Towson 4, Md.

June 27—FIRE CHIEFS EMERGENCY PLAN OF FAIRFIELD COUNTY. Monthly meeting. For information contact George B. French, Trumbull, Conn., Secretary.

June 25-27—MISSOURI VALLEY ASSOCIATION OF FIRE CHIEFS. Annual meeting, St. Louis, Mo. Secretary-Treasurer, Chief Ray B. Tiller, 319 East 5th Street, Waterloo, Ia.

July 18—FIRE CHIEFS EMERGENCY PLAN OF WESTCHESTER COUNTY. Monthly meeting. For information contact Chief John S. A. McAuliffe, Croton-on-Hudson, N. Y., President.

July 24-25—WESTERN NEW YORK VOLUNTEER FIREMEN'S ASSOCIATION. Annual meeting, Mount Morris, N. Y. Secretary, James H. Surridge, Industry, N. Y.

Aug. 6-10—PENNSYLVANIA FIRE SCHOOL. Annual meeting, Lewistown, Pa. For further information write Fire School, Public Service Institute, Department of Public Instruction, Harrisburg, Pa.

Sept. 17-20—INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION. Annual meeting, Mark Hopkins Hotel, San Francisco, Cal. Secretary, Irvin Shulsinger, 11 West 42nd Street, New York 18, N. Y.

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FOR ALL YOUR HOSE CONNECTIONS

improved SENSIBLE LUG COUPLINGS insure QUALITY and SAFETY

The improved Powhatan "Sensible-Lug Couplings" are precision tooled and manufactured of only the best high grade materials. They set a standard that is "tops" in this specialized field of fire-fighting equipment. The curved surfaces of this modern coupling enable the hose to glide easily over all obstructions, thus preventing snagging, an important safety and economical feature appreciated by those who know.

Specify "Sensible"

POWHATAN BRASS and IRON WORKS
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Established 1892

BAR-WAY HOSE COUPLINGS
FOR BOOSTER and HIGH PRESSURE FOG LINES

REMOUNTABLE — without the purchase of additional parts; use over and over again
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HIGH PRESSURE — tested to 3000 lb., 500 lb. pull
INTERNAL EXPANSION — no shrinkage of hose at coupling
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For maximum efficiency, economy and protection in ¾" and 1" sizes, specify Bar-Way couplings attached to hose of proper size.

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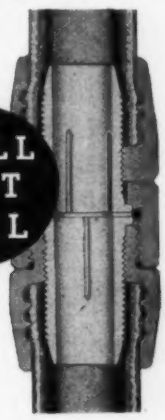

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3 GREAT

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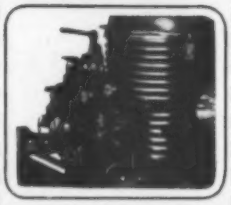
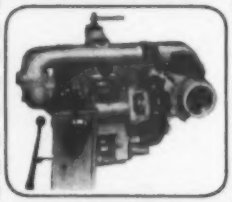
FIRE PUMPS



UA-50 The latest in front mounted pumps. Completely frost proof. Meets all Underwriters' tests for conventional capacities and pressures PLUS 400 lbs. fog gun pressure.



DMA Two independent pumps. Three operating characteristics. Delivers 400 lbs. pressure for fog gun service. Meets all Underwriters' tests for conventional capacities and pressures.

DMB Standard Duplex-Multistage Model PLUS two additional high pressure stages, 850 lbs. pressure for fog gun service.

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Persons in the News

Chief Coté Honored on Completing Half Century of Service

Fire Chief Augustin J. "Gus" Coté was honored at a golden jubilee testimonial as 1950 ended, marking his fifty years continuous service as head of the Woonsocket, R. I., Fire Department. Participating were representatives of most of the city's civic fraternal and religious groups, and over fifty out-of-town fire officials, many from distant points.

Chief Coté Honored After 50 years of Service Left to right (standing): Chief A. J. Coté; Chief Anthony Molloy; (seated): Chief John A. Laughlin; Chief John W. O'Hearn, and Colonel John Sheehan.

The testimonial dinner at Hotel Blackstone marked the anniversary of the Chief's entrance into the fire service and is reported to be the largest "stag" ever held in the city. While the all-male party was in progress, a group comprising wives of the chiefs were being entertained at the Uxbridge Inn.

The two-hour speaking program, most of it a eulogy of Chief Coté's long and faithful service, was broadcast over radio station WWON. Police Chief Edgar C. Turcotte welcomed the capacity throng of 450. Fire Chief Henry Thomas of Hartford, was the principal speaker. Attorney Eugene L. Jalbert was toastmaster.

Among the other speakers who praised Chief Coté were: Ex-Chief John W. O'Hearn of Watertown, Mass., secretary-treasurer, New England Association of Fire Chiefs, and Chief Anthony J. Malloy of Nashua, N. H., vice-president of the same association.

Presentations made to Chief Coté included a gold engraved wrist watch on behalf of the New England chiefs, presented by Chief O'Hearn, and an upholstered platform rocker by Chief Malloy. W. E. LaFond, president of the Woonsocket Trust Co., of which bank the Chief is the only surviving director of the original board, offered an engraved scroll: Alderman G. J. Paquin, chairman of the city council joint standing fire committee submitted a framed resolution adopted by the committee. Other mementos were a bronze plaque from the Lions Club; a framed scroll from the Kiwanis Club; an honorary degree of Doctor of Merit from the Boy Scouts of America; also a plaque from the Woonsocket Association of Insurance Agents; a gold emblem ring from Woonsocket Lodge of Elks; a golden jubilee medal from l'Union St. Jean Baptiste d'Amerique, and a gift from "his old cronies."

Other guests of the fire service present included Chief Otto Alletag, Warren, president, Rhode Island Fire Chiefs Club; Chief Richard M. Salamone, president, Massachusetts Fire Chiefs Club; Col. John Sheehan, Rhode Island Fire Marshal and Superintendent of State Police; Chief John A. Laughlin, E. Providence, president, N. E. Division of International Association of Fire Chiefs; Charles Kuchirwyaka, president, Woonsocket Firemen's Relief Association, and John V. Deffley, president, Woonsocket Fire Fighters Association.

ANDY PALMER

Chief Stiwald Retires

Fire Chief A. G. Stiwald, of the Amherst, Ohio, Volunteer Fire Department, has retired after serving 43 years in that organization. Following his retirement on January 1 his fellow-firemen presented him with a gold badge of Honorary Chief.

Chief Stiwald joined the Amherst Fire Department in 1907, when the apparatus consisted of a hand-drawn hose reel and a horse-drawn steamer. In 1920 he was appointed lieutenant and in 1932 he became chief.

The retiring chief is a member of the International Association of Fire Chiefs, the Ohio State Fire Chiefs Association and the National Fire Protection Association. He was first president of the North Central (Ohio) Firemen's Association and helped form the Ohio State Volunteer Firemen's Association. He is also an honorary member of the Englewood Florida, Fire Department.

Former Captain Chas. Edwards has succeeded Stiwald as head of the Amherst Fire Department.

Oldest Ohio Chief Feted

Fire Chief William Mader, 85, for 62 years head of the Bucyrus, Ohio, Fire Department, was guest of honor at a 4-alarm celebration given in his honor by the Ohio Fire Chiefs Association.

Fire Chiefs from Ohio Pay Tribute to Fire Chief William F. Mader, Seated Center, of Bucyrus, for His Sixty-two Years Duty. Left to Right, Standing, Are Chief Elmer M. Cain, Cleveland; Chief Larry Donovan, Lockbourne; Assistant Chief William Rosche, Canton; and Chief Ray Earle, Massillon. Seated Are Chief Barney J. Houston, Cincinnati; Chief Mader and Chief Walter Strickfaden, Columbus.

Over 50 fire chiefs from all over the state, and Bucyrus citizenry, paid tribute to the white haired but still active fire chief who has pledged to keep on serving as long as he has his health.

The celebration started with a six-block parade, which starred old-time apparatus, floats, bands and was witnessed by most of Bucyrus. Following the parade, a banquet was given by the Ohio

Fire Chiefs Association, attended by chiefs and some 100 other local friends of the chief, who has answered 2,956 alarms in his long career.

Chief Mader was appointed a fireman in 1883 and was named chief in 1888—salary $150 a year. Today's department has 8 paid men and 14 volunteers.

During the celebration, Chief Mader received an autograph book signed by all 260 persons at the dinner, a television set from his family, and a pen and pencil set.

Chief A. D. Judson Retires

Allan D. Judson, Chief of the Stratford, Conn., Fire Department for the past 42 years, was retired on January 4, to take effect on March 1. Chief Judson notified the Stratford Police and Firemen's Pension Board that his doctor advised him to retire for health reasons.

Ex-Chief Allan D. Judson

Chief Theodore Lockwood

At the special meeting of the Pension Board, Chief Judson was granted pension of half pay. Theodore Lockwood, Assistant Chief of the Department, has been advanced to Chief Judson's post. Chief Lockwood has been a member of the Stratford Fire Department since December 6, 1925. On May 1, 1936, he was advanced to the rank of Captain and named Assistant Chief of Department on April 1, 1944.

(*Continued on page* 146)

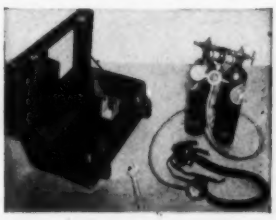
Protect Your Citizens with Better-Equipped Rescue Squads

Scott Demand Inhalator

THE new Scott *Demand* Inhalator provides efficient portable oxygen equipment for emergency use, *at low cost.* Offering "demand" flow of oxygen, plus constant flow if needed, the Scott *Demand* Inhalator can be used independently or as supplemental equipment in resuscitation, freeing resuscitators for use elsewhere.

The Scott *Demand* Inhalator is simply designed, easy to use. No adjustments of any kind are needed; department personnel does not require special training to use this new Scott product.

TYPE "A" Scott *Demand* Inhalator — portable, or for fixed installation in truck or ambulance (with or without cylinder)



TYPE "B" Scott *Demand* Inhalator including carrying case (with or without cylinders)

Here are the Outstanding Features of the New Scott DEMAND Inhalator

SIMPLE. The Scott *Demand* Inhalator is easy to use — requires no special training. No adjustments are necessary — just a quarter turn of the cylinder valve and the Inhalator is ready to restore shock, immersion and heart-ailment victims.

EFFICIENT. With the Scott Inhalator oxygen is provided in ample quantity as "demanded" by the victim, conserving precious oxygen supplies. Constant flow also available when needed, "at the touch of a button."

LOW COST. In any one of several models the Scott *Demand* Inhalator is available at a cost well below that of other equipment of comparable scope. Investigate this new low-cost oxygen unit *now!*

Made by the manufacturers of famous Scott Air-Pak Safety Breathing Equipment.

Ask your distributor for FREE DEMONSTRATION, or write us today!

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Fire Prevention Contest Winners Announced

Atlantic, Iowa, with a population of 6,000, won first place among 2,312 other U. S. cities and towns participating in the municipality division of the 27th annual National Fire Prevention Week contest, it was announced in New York on December 26.

The competition, sponsored jointly by the National Board of Fire Underwriters and the National Fire Protection Association, is held each year to judge the extent and effectiveness of fire-safety efforts throughout the nation during Fire Prevention Week.

It included this year besides cities, fire departments and industrial establishments in the United States and Canada, nearly 300 exhibits from American Army, Navy and Air Force bases. Entries totalled 3,342 in the various divisions and came from as far as Tripoli, Libya.

Second place among American cities went to Ft. Collins, Colo., and third place was shared by Ft. Wayne, Ind., and Memphis, Tenn., which last year had won first place.

Among the 660 Canadian entires, first place was awarded to Sherbrooke, Quebec. Runners-up were Hull, Que., in second place and Ottawa, Ont. in third.

In the industrial plants division, Delco-Remy Division of General Motors Corp., Anderson, Ind. won first place for the second year. The Bolling Air Force Base, Washington, D. C. was chosen first among the 67 Air Force bases represented. First place in the Army base division went to Fort Bragg, N. C., out of a possible 80 exhibits while the Navy Ordnance Laboratory, Silver Springs, Md. and Boston Naval Shipyard, Boston, Mass., tied for first place among 138 Navy entries.

An international committee of judges based its decisions on the exhibits of fire loss records, scrap books, posters, photographs, motion pictures, phonograph records and other evidence of fire prevention activities during the October 8-14 Fire Prevention Week and Spring Clean-Up Week.

Judging took into account the size of the city or establishment competing and the proportionate effectiveness of its efforts, according to T. Alfred Fleming, former director of conservation of the National Board of Fire Underwriters, and chairman of the contest. Entries were graded on community or institutional inspections made during Fire Prevention Week, on their work with schools, businesses and evidence of results.

Judges were: Percy Bugbee, Boston, general manager, National Fire Protection Association, John A. Neale, chief engineer, National Board of Fire Underwriters, Fred Shepperd, technical consultant, International Association of Fire Chiefs, and A. Leslie Ham, manager, Dominion Board of Insurance Underwriters, Montreal.

Other cities and towns in the top grading of 90 to 100 per cent in the United States are in the order of their ratings: Los Alamos, N. M.; Richland, Wash.; Oak Ridge, Tenn.; Jersey City, N. J.; Bloomington, Ind.; Dayton, Ohio; Chicago, Ill.; Allentown, Pa.; Tuscaloosa, Ala.; Decatur, Ill.; Louisville, Ky.; Abilene, Texas; Spokane, Wash.; and Norfolk, Va. The leading city in the 80 to 90 per cent class is Staten Island, N.Y.

The top Canadian cities in the 90 to 100 point bracket are: Sherbrooke, Que.; Hull, Que.; Ottawa, Ont.; Port Alfred, Ont.; and Arvida, Que.

Top-ranking industrial plants selected among the 82 entries are: Delco-Remy Division, General Motors Corp., Anderson, Ind.; General Electric Co., Fort Wayne, Ind.; Guide Lamp Co., General Motors Corp., Anderson, Ind.; Westinghouse Electric Co., Atomic Power Div., Pittsburgh, Pa.; E. I. DuPont de Nemours & Co., Waynesboro, Va.; R.C.A.-Victor Division, Radio Corp. of America, Bloomington, Ind.; Aluminum Co. of Canada, Arvida, Quebec, Canada; Small Industries, Anderson, Ind.; Roberval and Saguenay Railroad, Arvida, Que.; Argonne Electrical Laboratory, Chicago, Ill.; The Quaker Oats Co. of Canada, Peterboro, Ontario; Servel Inc., Evansville, Ind.; Langlac Pulp and Paper Co., Terrace Bay, Ontario; DeHavillan Aircraft Co., North York, Ontario; Spruce Falls Power & Paper Co., Kapuskasing, Ontario.

Second Alarmer's Disaster Unit Damaged in Crash

The disaster unit of the Second Alarmer's Association, Willow Grove, Pa., rated as one of the foremost such units in the nation, was badly damaged in a crash with a coal truck on December 2, 1950, while responding to the Chester Valley Golf Club fire, near Paoli, Pa. Two occupants of the huge bus-like vehicle were injured in the

YOU CAN TERMINATE OVER 50% OF ALL FIRE CALLS USING ONLY

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Booster Pumps

The records of many departments show over half of all calls satisfactorily terminated by Oberdorfer Bronze Rotary Gear Booster Pumps alone, with little or no fire or water loss. These pumps held many more of those calls in control the few minutes until heavy pumpers went into action. They provide water and pressure just as fast as a fireman can get to a fire.

For all their usefulness, Oberdorfer Booster Pumps are surprisingly inexpensive, from $72.50 for a 50 G.P.M. size to $190.00 for the 150 G.P.M. size illustrated.* We have been making bronze gear pumps since 1896, and their quality is attested by the hundreds of departments that have used them for years.

*Slightly higher west of the Rockies.
Prices subject to change without notice.

PERFORMANCE DATA — No. 26 PUMP SHOWN ABOVE

Pump Shaft RPM	Pounds Pressure	Hose Length and Size	Dry Suction Lift in Feet	Vol. in Gal. Per Minute
1600	120	500'-1½"	15'	150

For complete specifications of this and other Oberdorfer Booster Pumps, and name of your distributor, write:

FIRE PUMP DIV., OBERDORFER FOUNDRIES, INC., Syracuse, N. Y.

It will help if you mention FIRE ENGINEERING *when writing advertisers*

crash, which stove in its front and caused damage estimated at $5,000.

This mishap serves to call attention to the remarkable work being done by the Second Alarmer's Association and its equipment, consisting of coffee wagon and disaster unit.

The Association, founded in 1938 by five residents of Willow Grove, was created to care for and serve fire fighters, police and rescue workers in time of need. It's motto was, and is: "To Be of Service to Those Who Are Aiding Others In Time of Distress."

Its fire truck, a Buick, was built by the little group. When they wanted a cabinet maker, they got one to join the Association; the same with a blacksmith. The first fire it responded to was on April 2, 1938, when over 60 gallons of coffee were served. Other fires at which it served were the Raymond Pitcairn estate blaze; the Cities Service Refinery fire in Linden, N. J., and the Hollingshead chemical conflagration in Camden, N. J.

Later, an ambulance truck was created out of a Dodge truck, the funds, like those which paid for the coffee wagon, being donated by friends. A new coffee wagon was built and equipped in April, 1947, and this unit is still in operation. The Dodge ambulance, however was found to be outgrown and the Second Alarmers again went out for funds for the ultimate in disaster and rescue units. They secured the money and construction began in 1949. The new unit, which was built in Ohio (with interior work contributed by members themselves), was shown to firemen on June 25th, last, in Willow Grove, where it evoked loud praise.

The bus-like vehicle is completely equipped with every facility for first aid and disaster operations. Equipment ranges from blood plasma, hypodermic needles and an emergency operating table for medical first aid, to life-line guns, acetylene cutting equipment, heavy duty jacks and hydraulic spreaders. Breathing apparatus and masks, oxygen supplies, gas detector and carbon monoxide indicator, together with forcible entry equipment, are included in the long list of facilities.

The unit has two-way radio on the frequency of the Montgomery County Police, and a P.A. system, both of which have proved invaluable in time of trouble. A novel feature is the automatic 110-volt generator which delivers current whenever a portable light or other electrical accessory is plugged into one of the numerous light sockets located strategically on the inside and outside of the body.

Officers of the Second Alarmers Association

Officers of the Second Alarmer's Association and Rescue Squad of Montgomery County, Inc. are: Pres., A. T. Clarke, Jr.; Vice-Pres., Nick Fischer; Sec'y., H. Lisle Conine, and Treas., John J. Deisher. The Chief is Walter Blair, the only one of the five original founders still active. The following are Assistant Chiefs: George Bradney, Marshal Taylor and Donald Kyle. The Medical Advisor is Dr. Harold B. Shaw; First Aid Director, A. T. Clark, Jr., and Supervisor of Maintenance, Charles MacGregor. At present the roster, in addition to the foregoing, includes seventeen active members.

Expands efficiency too!

No. 926—Buckeye Expander

Here's why: Simplicity in functional design. With a simple change of segments, only one Buckeye Expander is required to expand rings for hose sizes from ¾" to 3" inclusive. Then, by merely turning the handle in the opposite direction, segments are automatically released for safe removal of hose and coupling. Easy to work, trustworthy and durable, Buckeye expands efficiency—only *one* required.

Buckeye

FIRE DEPARTMENT ACCESSORIES

BUCKEYE IRON & BRASS WORKS, DEPT. E, DAYTON 1, OHIO

CENTRAL 750 GPM Pumper recently delivered to Marlin, Texas.

CENTRAL FIRE TRUCK CORP.

4437 Manchester Avenue, St. Louis 10, Mo.

"DROWN" FIRES . . .

MORE EFFICIENTLY—
MORE ECONOMICALLY—
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FIREWATER

Make water "wetter" at a fraction of the usual cost with FIREWATER* . . . the tested and proved chemical penetrant. Here are a few of the exclusive FIREWATER features:

- **1: 600 dilution rate—highest on the market!**
- **$2.40 per gallon price—lowest on the market!**
- **Absolutely non-corrosive—safest on the market!**

That's the FIREWATER story in a nutshell—that's why FIREWATER is fast becoming America's leading wetting agent for fire fighting.

Write *today* for more details—and for *free* diagram of simply made, low-cost proportioner you can make yourself. Dealers, nationwide.

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Please send me full information on FIREWATER and FREE proportioner diagram.

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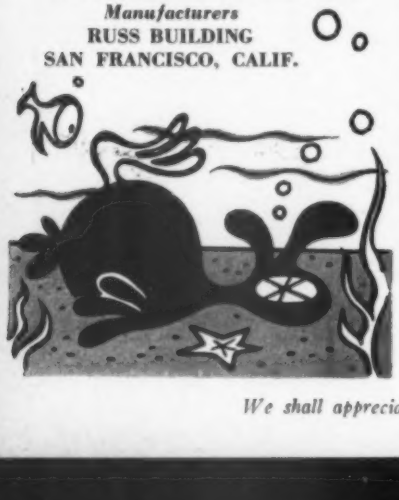


Manufacturers' Announcements

New Fire Fighting Equipment

A new development in the line of fire fighting equipment is the "superbooster" unit manufactured by Hurst Industries, Inc., of San Jose California. According to Gordon F. Hurst, president of the concern, the Hurst equipment design centers around a special aqua-jet nozzle which delivers either a straight stream or fog pattern.

Three-Wheeled Towing Type Fire Fighting Unit Built by Hurst Industries, Inc.

The unit is powered by either a 5 or a 7½-horsepower engine to deliver from four or ten gallons per minute at six hundred pounds per square inch pressure.

At present the company is in production on units fitting Universal Jeep CJ-3A, small pick-up trucks, and a three-wheeled towing type model. Tank sizes from seventy-five to two hundred gallons are used, depending on the model, and each is equipped with a hose-reel holding four hundred feet of half-inch high pressure hose.

Stream projection of thirty-five feet makes these units effective in extinguishing fire in brush, field, and small structures. These units are said to be amply large to serve as auxiliary standby equipment for fire department use.

"Vitamin" Capsules Said to Provide Easy Starting in Winter

Cold weather can be serious business for drivers of fire engines. Starting, after vehicles have been outdoors all night, has been a heavy and expensive chore. Now that phase of winter automotive operation is reportedly licked. The solution, known as Chevron Starting Fluid, traces right back to the Army's construction of the Alcan highway during the war.

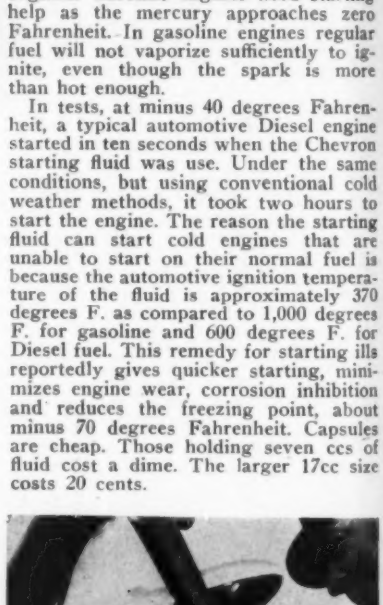
Aptly nicknamed vitamin pills for engines, the product grew out of the Army's need to keep automotive equipment, both Diesel and gasoline, running in Alaskan winter temperatures that can range down to 79 degrees below zero Fahrenheit.

Research men from Standard Oil Company of California who were invited to Alaska to study the problem, developed "Chevron Starting Fluid." The capsule containers are a later improvement. During the war, both hand operated spray guns and auxiliary tank systems were used to get the fluid into the combustion chambers.

After D-Day, better and safer methods of using this starting fluid were worked out. The gelatine capsules containing fixed amounts of the fluid were the first step. They were perfected by C. J. Moody, vice-president of the California Oil Company. Following this, production of the fluid-containing capsules was turned over to the Gelatine Products Division of the R. P. Shearer Corporation of Detroit, specialists in the field of capsule packaging. The "capsule starter" works with a priming system that is permanently connected to the intake manifold of engines such as those used in fire department. The operator simply places a capsule in the receptacle, punctures it by pressing down the plunger and then primes the engine before he steps on the starter. The system has been designed with one to three injection nozzles so that it is adaptable to all internal combustion engine types and sizes.

Starting heavy automotive power units on regular fuels becomes increasingly difficult as temperatures drop. The freezing point is the critical spot for Diesel engines. Gasoline engines need starting help as the mercury approaches zero Fahrenheit. In gasoline engines regular fuel will not vaporize sufficiently to ignite, even though the spark is more than hot enough.

In tests, at minus 40 degrees Fahrenheit, a typical automotive Diesel engine started in ten seconds when the Chevron starting fluid was use. Under the same conditions, but using conventional cold weather methods, it took two hours to start the engine. The reason the starting fluid can start cold engines that are unable to start on their normal fuel is because the automotive ignition temperature of the fluid is approximately 370 degrees F. as compared to 1,000 degrees F. for gasoline and 600 degrees F. for Diesel fuel. This remedy for starting ills reportedly gives quicker starting, minimizes engine wear, corrosion inhibition and reduces the freezing point, about minus 70 degrees Fahrenheit. Capsules are cheap. Those holding seven ccs of fluid cost a dime. The larger 17cc size costs 20 cents.



The Driver of This Fire Engine Is Putting a "Vitamin" Capsule into the Dash Installation. Next Step Will Be to Replace the Top of the Container and Press the Plunger All the Way Down to Release the Fluid.

A booklet describing the Chevron starting fluid system may be obtained from the California Oil Company, P. O. Box 2, Barber, N. J.

Annual Reports Received

Colorado Firemen's Association Proceedings

The Proceedings of the 33rd Anniversary Convention Tournament and Fire School of the Colorado State Firemen's Association held in Fort Morgan, on June 7, 8, 9, and 10, 1950, are contained in an unusual volume.

The 121-page book includes a complete transcript of the records of the convention from the opening remarks of President George L. Peterson of Fort Morgan to the conclusion and list of members.

The printing is done on colored stock and the entire edition shows careful preparation and editing.

* * *

British Columbia Losses Increase

Oddly enough, fire losses in British Columbia for the year 1949 were almost identical with those of the State of Iowa. Losses in B.C. amounted to $7,556,229, an increase over 1948 of $408,507. Forty-five persons lost their lives in the Province. There are 35 municipalities, 27 district municipalities, 39 village municipalities and 20 fire districts in the Province reporting on losses. Mr. W. A. Walker is Fire Marshal.

* * *

Minneapolis Fire Loss Decreased

The Annual Report of the Minneapolis, Minn., Fire Department for the year 1949 showed a per capita fire loss for the period of $4.38. Fire losses were $2,268,496.16 as compared with $3,047,570.76 for the year before. There were 5,258 alarms.

During the year, combination company 21 was changed over to two separate company units, Engine 21 and Ladder 2. This practice will be followed with other combination companies, according to Fire Chief Reynold Malmquist, who also recommends that a new fire district be established, making five in all. He would like to see replacement of eight old fire stations.

The report, which is most comprehensive, shows companies Traveled 26,368.6 miles to answer all alarms.

California Chiefs' Convention Place Swept by Fire

Far-western fire chiefs, particularly members of the Northern California Fire Chiefs and California State Firemen's Association have a particular interest in the fire that recently swept the kitchen, bakery and dining room of Hoberg's Resort, located about 100 miles north of San Francisco, Calif., in Lake County on Cobb Mountain, for many firemanic conventions have been held at that resort.

The fire, cause undetermined, came when the resort was closed for the winter, and was discoverd by the wife of the caretaker. The resort's own fire-fighting equipment was quickly brought into action, and was aided by fire forces from Whispering Pines and Forest Lake Resorts; also by Sulivan's Mill and Middletown Fire Department. Damage was reported at $35,000.

GEORGE TURNBULL, Chief
Lakeport, Calif.

Insert Shows Floodlight Elevator in Raised Operating Position

EMERGENCY FLOODLIGHT TRUCKS

DeLuxe CUSTOM BUILT EQUIPMENT with or without the FLOODLIGHTING FEATURE, All Steel Enclosed

THREE - MODELS

THE SENIOR
(3 ton Chassis, 175" Wheel Base)

THE STANDARD
(2 ton Chassis, 158" Wheel base)

THE NEW X-L ECONOMY UNIT
(1½ ton Chassis, 158" Wheel Base

All Models carry complete First Aid and Salvage Equipment as required by the customer.

The SENIOR MODEL—most suitable for cities, is equipped with exterior and interior compartments and seats for the crew. Five built for the City of New York; one with portable floodlighting equipment and four with 10KW power take off driven generator and elevator controlled floodlights. Three built for the City of Philadelphia, with 10KW elevator controlled floodlights.

The STANDARD MODEL—for the average Fire Department, with or without elevator floodlights, equipped with exterior compartments, and the interior equipped with mounted stretchers and seats for the crew. This model in service in many Fire Departments for over 10 years.

The NEW X-L MODEL—provides maximum facilities at minimum cost.

Write for detailed construction and electrical specifications, photographs and prices and state your requirements.

AFE APPROVED FIRE EQUIPMENT CO.
ROCKVILLE CENTRE • NEW YORK

FOR 30 YEARS — SINCE 1920 . . .

Hedberg Sirens Have Been Most Outstanding

Our Engine-Drive Siren has no equal and our 8" Electric Siren has a record of rolling over 9 minutes!
They are worth bragging about!

Specify* HEDBERG *for your new Rig

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gets the drop on FIRE

DRENCH DOUBLES WATER SUPPLY SPEEDS ACTION

For faster, more thorough action on fire with less water, add Drench to your water supply.

Makes water wetter! Just a 1% proportion by volume of Drench added to your water supply will double its fire fighting effectiveness. Helps you fight fire faster . . . knock it down . . . and keep it down.

Drench effectively changes the characteristics of water without limiting its use or requiring special equipment. Join the hundreds of fire companies now using Drench. Write for complete details on how you can save on water . . . damage . . . and stand-by protection with Drench.

NATIONAL FOAM SYSTEM, Inc.
West Chester, Pa.

DRENCH

A NATIONAL FOAM PRODUCT

The WATCH DESK

Overhauling the firemanic news of the day

by ROI B. WOOLLEY

Concentration?—Chess Sir!

Much has been said about the intense absorption of chess players with the important business at hand, but history was made late last year by a group of New Yorkers who kept right on checking and taking, although the house was afire.

"Gentlemen," said Harold Fisher in subdued tones to 50 members of the N. Y. Academy of Chess, 212 West 42nd St. "there is a fire on the roof."

Fisher never got a rise and the only move the enthralled players made was on their boards. He repeated the information. No response.

This was shortly before 3:00 P.M., and Engs. 26, 54, 34, Ladders 21 and 4 complete with crews, two chiefs and emergency rigs arrived on the scene and raced to the roof dragging hose through the chess sanctuary on the second floor.

"Your move, Joe," said a player, who glanced up at the passing Brothers and cautioned him against upsetting the board.

After about ten minutes, one of the firemen, passing through to "pick up," announced that the fire in a roof vent had been extinguished.

"Your move," said Joe.

And the fire fighters moved out.

* * *

The Brothers Must Give Up Beds!

Mayor Joseph L. Willett of Haverhill, Mass., said in November that he would have beds removed from all Haverhill fire stations as soon as the firemen's 48-hour week goes into effect.

He also said he would eliminate bedding items from a requisition list submitted by Acting Fire Chief George E. Hubbard.

Hizzoner, who appears to be an opponent of the shorter work week voted in the recent state election, said: "The firemen won't be in the fire station long enough to sleep, so what do they want the beds for? They'll have plenty of free time on their hands and can get their sleep at home." (Thanks JACK KEARNS)

* * *

Hot Off the Tape

A fire alarm sounded from the fashionable Hotel Traymore in Atlantic City one Monday at 5:00 p.m. When an alarm sounds in that city, traffic lights are supposed to change from green and red to blinking yellow. That's the signal for all traffic to halt instantly. Well, this time the lights went off entirely—result a terrific scramble. Traffic moved at its own sweet will and even the fire rigs were stalled for several minutes. It turned out to be a false alarm. . . . Near Phoenix, Ariz., W. F. Armstrong used a garden hose to try to douse flames when his house burned, but he refused the aid of a fire company. Armstrong does not subscribe to the privately operated rural fire protection company. Last year when the company extinguished a fire at his home, it sued him for $200. So-o-o-o, when fire struck again, Armstrong fought it himself. It burned, despite his efforts. But he wasn't glum. "I figure I save myself $200," he said, "This place is insured." . . . Robert Griffith, 36, of Trenton, N. J., was sentenced to ten days in Northampton County Prison, Easton, Pa., charged with reckless driving when his car crashed into a barn and set it on fire. Barn was destroyed. . . . In Los Angeles, commercial artist James Hays, 44, complained in a divorce suit, his wife taught their son, aged 17, to apply lighted matches to his father's bare feet while Pop slept. . . . At Fort Pierce, Fla., the fire department rolled to an automobile fire on Angle road. The report showed that it was a "short in the wiring"—further, that the car was owned by Charlie Shortt, who incidentally is secretary of the Ft. Pierce Volunteer Association. Damage was "short." How d'we know? Because Charlie Shortt is an F. E. correspondent! . . . It is reported from Exeter, R. I., that a school bus driver faced with two blowouts and only one spare tire, spotted a nearby fire station. Unable to find anyone around the place, he jacked up the fire truck and borrowed a tire! Said firemen "Don't do it again!"

"We might want to go to a fire!" . . . (Thanks W. A. MCDONNELL) . . . When the truck of the Cookstown, Ont. volunteer fire department went kaput en route to a fire, the vamps took off afoot. A rush call brought the Alliston brigade, 10 miles in a reported 10 minutes to fight the fire which was in a haystack. Meanwhile all available souls took hold and pulled, towed and pushed the Cookstown truck to the blaze where it arrived on time to help same some buildings. . . . It doesn't often happen, but in St. Catharines, Ont., Edward Agnew, 26, a public utility's lineman, received the full force of 22,000 volts and was revived by means of artificial respiration. . . . Although firemen and policemen tried to restrain her, Mrs. Bernice Durst, 32, leaped to her death from the roof of her 3-story home in Scarsdale, N. Y. For half an hour, clad only in a bathrobe, she'd threatened to jump. A ladder was raised to the edge of the roof and fireman Thomas Langan climbed it, reached the roof as Mrs. Durst plunged past him. His frantic grab caught the robe, but her weight ripped it from his hands. . . . In Toledo, Ohio, Farris Colyer, 41, paralyzed by disease, waved a smiling goodbye to his two school-bound kids, then slid himself from his home down the steps, and into his automobile he no longer could drive. An hour later his charred body was found in the car. District Chief William Young said no one would ever know how Colyer turned himself into a human torch. Beside the body were two pails and a dishpan, smelling of oil. . . . In Burlington, Ia., a near deaf mute recovered his speech long enough to shout one word when fire broke out in the factory where he worked. The word was "Fire!" . . . Nearly 3,000 persons paraded one night in Nashville, Tenn., in observance of F. P. Week. Firemen in the procession had radios on the alert, and were prepared to drop out in event of an alarm. When the parade

was over, the men of Company 9 returned to find their own engine house full of smoke. "It was our television set," one of the Brothers said tearfully!

* * *

Firehouse Doubles for Beauty Salon

Now we've seen everything! The Lawrence-Cedarhurst, L. I., fire station has gone in for beauty culture in a big way! It happened like this:

Electric power trouble developed in a beauty parlor across the street from the firehouse not so long ago. The proprietor moved fast. He had to, because seated in his shop, getting the full "treatment" were six uncomfortable women whose scalps were soaking wet.

Obtaining permission, the proprietor hastily transferred six drying machines to the firehouse social room. Next came the ladies, who ordered sandwiches for lunch, while the operators continued their work almost uninterrupted.

Several hours later the wiring was repaired and the machines were moved back to the beauty parlor. That moaning in the distance is said to be Lawrence-Cedarhurst firemen bewailing the fact that not a single alarm came in during the "emergency."

THOMAS J. KEARNS

* * *

Lucky Firemen Ride Falling Wall to Safety

Firemen Walter Stewart and Fred Arnold rode a falling wall to safety in Bristol, Va.-Tenn., as a motor company building went up in flames, apparently caused by an explosion of gas tanks stored underneath.

The lucky fire fighters were slightly injured and taken to a hospital, but were later released. A third fireman according to accounts, was missing.

The building, which housed the Stoots-Fleenor Company, was wrecked with loss estimated at $100,000. All available fire forces were rushed to the scene and Arnold and Stewart were operating on the roof of the structure when they saw the building was going to collapse. They ran to the front wall and rode it down as it fell. Fortunately, the wall collapsed outward, away from the fire.

Fire fighters, who were hampered by sub-freezing weather, confined the fire to the motor company structure.

R. H. DAVIDSON

* * *

Freak Boat-Van Crash Sets Off Florida Fire

In a spectacular accident involving a 32-foot boat, a truck, a street sweeper and filling station in Riviera Beach, suburb of West Palm Beach, Fla., two men were burned in the resultant fire and explosions.

The boat, truck, street sweeper and filling station were related this way: The driver of a trailer truck, transporting a boat from Detroit during a dense early morning fog, struck the street sweeper and "jacknifed." The boat knocked down an overhead traffic signal, and both vehicles skidded into the filling station, bowling over gasoline pumps. A broken power line ignited the spilled gasoline. There was an explosion and fire which destroyed the truck, badly damaged the boat, trailer and filling station.

James Allen, 33, driver of the trailer truck, was badly burned in the fire and Earl Robinson, 45, driver of the street sweeper, received leg burns while rescuing Allen from his blazing vehicle.

Damage was estimated at $20,000.

WE PROUDLY PRESENT—

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WITH RAISED LETTERS SURROUNDED BY HARD BAKED JEWELERS ENAMEL

THIS PROGRESSIVE DEVELOPMENT IS THE RESULT OF YEARS OF EFFORT AND RESEARCH — ANOTHER STEP ON THE PART OF EVERSON-ROSS TO BRING YOU THE BEST.

THE RAISED LETTERS ARE SURROUNDED BY THE FOLLOWING RICH SHADES OF HARD BAKED JEWELERS ENAMEL — BLUE, BLACK, RED AND GREEN.

PRIOR TO THIS DISCOVERY, RAISED LETTERING SURROUNDED BY HARD ENAMEL WAS ONLY FOUND IN THE MOST EXPENSIVE BADGES. NOW IT IS WITHIN THE RANGE OF ORDINARY BADGES WITH STAMPED LETTERING.

ONLY EVERSON-ROSS CAN GIVE YOU THESE HANDSOME BADGES AT SUCH AMAZING LOW PRICES.

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Another

BOYER!

CUSTOM BUILT apparatus recently delivered to Ft. Fairfield, Me.

BOYER FIRE APPARATUS CO.
LOGANSPORT, IND.
ESTABLISHED OVER 70 YEARS

The HALE TYPE "BL" Discharge Valve

. . . Available on All HALE Fire Pumps

Easy-turning at all pressures, the Hale Type BL Discharge Valve can be "gated" and locked into position by a slight turn of handle to prevent creeping. The water flow is through a perfectly round waterway for low flow resistance.

Many tests have proved the valve's reliability and freedom from service troubles.

The "BL" valve is not sensitive to dirty water and will hold high pressure or vacuum. Replacement parts are inexpensive, easy to install and do not have to be "ground in." Ample handle clearance and easy turning mean freedom from "knuckle busting."

The Hale Type BL Discharge Valve is typical of constant Hale improvements resulting from constant research.

For detailed information send for Bulletin No. 293 on the Hale BL Discharge Valve.

OUTSTANDING FEATURES

- **Turns easily at all pressures.**
- **Will not leak at pressure or vacuum.**
- **Circular section through valve cuts flow loss.**
- **Not sensitive to dirty water.**
- **Easily serviced . . no "grinding in."**
- **Slight twist of handle locks valve into any desired position for gating.**

HALE FIRE PUMP COMPANY
CONSHOHOCKEN, PA.

Hale Fire Pumps Are Built in All Standard Capacities

This emblem, which identifies one of the Nation's most complete lines of department supplies, is known and respected wherever fire fighting equipment is used. It is the mark of thoroughly sound design and extremely high quality.

ELKHART BRASS MANUFACTURING CO. Inc.
Elkhart, Indiana

Chief John Brennan Dead

John E. Brennan, Chief of the Cumberland, Md., Fire Department died on December 10th.

Chief Brennan joined the department on October 20, 1914, and was promoted to captain on October 19, 1924. He became assistant fire chief January 19, 1925 and chief on July 1, 1948.

He was a member of the Eastern Fire Chiefs Association and the International Association of Fire Chiefs.

Until a new chief is appointed, W. L. Lindner is serving as acting chief.

Ex-Chief Clement Murphy Dead

Former District of Columbia Fire Chief Clement Murphy died of a stomach ailment on Jan. 15th. He had been living in Berkeley City, where he resided after retiring from the department in 1949.

Chief Murphy's career as head of the District department was a stormy one, marked by wrangles with his officers and men. Notwithstanding these upsets, Chief Murphy was instrumental in inaugurating a number of improvements in the department, including use of small hose, and increases in the use of radio.

The late Chief entered the department in 1919, after serving in the Navy in World War I. He was promoted to sergeant in 1928 and in 1931 to the rank of lieutenant. In 1932 he was made captain. He rose to battalion chief in 1939 and was assigned to the training school as drillmaster. In 1941-2 he was detached from regular work to serve as chief air-raid warden in the local OCD organization. On March 1, 1946, at the age of 48, Murphy was appointed Chief Engineer in command of the fire department.

Chief Murphy was injured at fires upon several occasions and in 1932 suffered eye injuries which later affected his health, ultimately causing his retirement.

Persons in the News

(*Continued from page* 139)

Effective April 1, Captain Reginald Judson, son of the retired Chief, will be promoted to Assistant Chief to fill the vacancy caused by Mr. Lockwood's advancement to Chief of Department. Asst. Chief Judson has been a member of the Department since February 26, 1929.

Retired Chief Judson was appointed to the Department as its first paid member and Chief on February 17, 1909, at a weekly salary of $15. Prior to that appointment he was for 10 years a member of the volunteer fire company. He was Stratford's first paid fireman, first full time head of the Department, and for years after his appointment he was the only member of the paid Department.

TOM MAGNER

N.B.F.U. Advances Coumbe

Harold A. Coumbe was appointed assistant general manager of the National Board of Fire Underwriters at a meeting of the Executive Committee on January 11.

Mr. Coumbe, who lives in Westfield, N. J., was graduated from Columbia

University in 1918, and served in the Signal Corps during World War I.

He joined the National Board in November, 1927, and was named assistant secretary in 1937. He served as assistant to the general manager from 1943 to 1951.

Martin Scott Appointed Chief Fire Marshal N.Y.F.D.

Martin Scott, who has been Acting Chief Fire Marshal of the New York Fire Department, has been appointed Chief Fire Marshal and head of the Bureau of Fire Investigation. He replaces Acting Chief William P. Murphy, 41-year member of the department, who retired in January at the age of 63.

Fire Commissioner George P. Monaghan Pinning Badge of Chief Fire Marshal on Martin Scott, as Fire Chief Peter Loftus Smiles On. At the Left Is Chief Scott's Family.

Marshal Scott, who is 53, served for 21 years under Thomas P. Brophy, who retired as Chief Fire Marshal and head of the Bureau of Fire Investigation in Dec. 1948. Marshal Scott had been a deputy to Mr. Brophy and in effect had been Chief Fire Marshal since Mr. Brophy's retirement.

In announcing the appointment, the departments' new fire Commissioner George F. Monaghan noted: "His (Scott's) promotion is in keeping with my policy to reward merit and ability whenever it is in my power to do so."

Marshal Scott was born in Brooklyn and joined the department April 3, 1924.

What's Burning

THE following list includes fires of $10,000 loss and over in the United States and Canada for the month of January, 1951.

Month Ending January 31, 1951

Stillwater, Minn.—A. R. Schwantes Plumbing and Heating Shop, destroyed.

Berlin, N. H.—Brown Co. tube mill, damaged.

Elizabeth, N. J.—Reichhold Chemicals, Inc., damaged. Explosion.

Clifton, N. J.—Business bldg. occupied by Eugene Perfumes Extraordinaire, State Sportswear Co., Eugene Dunn, plastics atomizers, damaged.

Perth Amboy, N. J.—Loft Candy Co., Cotton Cabin Shop, Reynolds Dept. Store and Jackson's Clothing Store; damaged.

Danville, Va.—Large whse. used by Hayman Construction Co. destroyed.

Martinsville, Va.—Planters' Whse., D. H. Townes & Co. furniture, Henry County Furniture Co., Leham Knitting Co., Brooks Machinery Co. furniture whse., barber shop, grocery store, fish market, wholesale fruit and produce firm, and several tobacco storage firms, damaged.

Seattle, Wash.—Globe Electric Co. bldg. damaged.

Valdor, Que.—Garage and showrooms of Gordon Motors, Ltd., and adj. Brewery branch garage, destroyed. Acetylene torch.

Vancouver, B. C.—Parks Hotel destroyed, and

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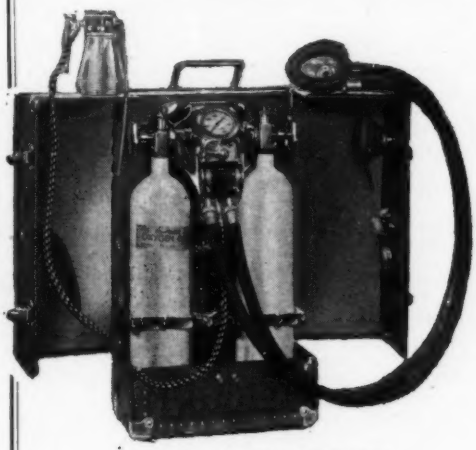
STEPHENSON—RESUSCITATOR



STEPHENSON RESUSCITATOR
(Goodner Model)

You can do a better job of resuscitation in some major catastrophe, by having immediately available our new features.

LET US TELL YOU ABOUT THEM AT YOUR NEXT MEETING.

A post card will bring literature and a demonstration.

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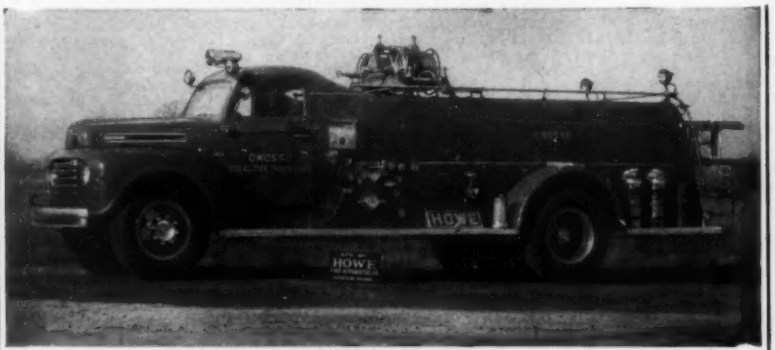
RED BANK NEW JERSEY



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Centrifugal, Rotary and Piston Pumps Supplied
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PREAKNESS
FIRE FIGHTING TRAILER PR82250

MINIATURE SELF-CONTAINED FIRE DEPT. for civilian defense, industrial, rural, farm, municipal, etc., needs.

SIMPLE TO OPERATE—anyone can learn to operate it in several minutes, as it has no complex gadgets.

WATER CAPACITY is 200 gallons—enough for most fires.

ACCESSORIES includes extinguisher, axe, hose, ladder, plain and fog nozzles (foam, wet water, masks, generators, etc., are optional).

PORTABLE PUMP is connected directly to tank and fire hose; can be detached and used anywhere.

MANEUVERABILITY thru ball bearings, leaf springs, pneumatic tires, ball hitch; balances on uneven ground.

INTEGRAL CONSTRUCTION—the only pump trailer with tank integrally welded to chassis. OTHER MODELS AVAILABLE

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TRIPPE FRONT AND REAR FLASHER LIGHT CLEARS THE WAY

A gleaming, chromium Beauty, 7½" in diameter that sends its RED warning front and rear at 60 times a minute. In spite of its size it is very light and easily mounted on its aluminum pedestal.

Quality for which TRIPPE is famous, plus its extremely low price makes this Type FRF-1 a must for all fire equipment.

Your supplier has this light or can quickly get it.

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CHICAGO 6, ILL.
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newsprint storeroom of Vancouver Daily Province, damaged.

Ashland, Ky.—Gibdon Brothers furniture store, damaged.

Louisville, Ky.—Holiday Inn damaged.

Richmond, Va.—Grant's Drug Store, Student Shop, on University of Richmond Campus, damaged.

Phoenix, Ariz.—Write & Kenly Packing Co. shed damaged.

Pine Bluff, Ark.—Automatic concrete mixing unit at Pine Bluff Sand & Gravel Co. destroyed. Kerosene stove explosion.

Los Angeles, Cal.—Unit of Four Gables Apts., destroyed.

Marshalltown, Iowa—Fidelity Savings Bank Bldg. damaged.

Danville, Ky.—Broadway Elementary School destroyed.

Bend, Ore.—Marshall Grade School damaged.

Chatham, Va.—Whse. of Haymes Construction Co. destroyed. Spontaneous ignition.

Orfordville, Wis.—East Luther Valley church destroyed.

Hull, Que.—Bellefontaine Tavern, Palermo Grill, a barber shop and Maison Alfred Rooming House, destroyed.

Westport, Conn.—Christ and Holy Trinity Church damaged. Defective oil burner.

Evansville, Ind.—Eight business bldgs. badly damaged.

York, Neb.—Bldg. occupied by Housing Administrative Offices of York College, destroyed.

Newark, N. J.—Toporista Importing Co. damaged.

Mecklenburg, N. Y.—Post office, restaurant and grocery store and several unoccupied apts. destroyed.

Newark, Ohio—The six-story Kings Dept. Store, damaged. Some water damage to the basements of the Newark Trust bldg. and the S. S. Kresge Co. store, which flank the dept. store.

Grenfell, Sask.—Armory of Sixty-Fifth Battery of Twenty-Second Field Regiment, Royal Canadian Artillery, destroyed.

Hamilton, Ont.—Plt. of Pittsburgh Water Heater Co. damaged.

Ottawa, Ont.—Ward Market destroyed.

Kankakee, Ill.—Florence Stove Co. damaged.

Rainy River, Ont.—Roman Catholic Church destroyed.

Decatur, Ill.—Repair garage of Nolan Motor Co. destroyed. Acetylene torch.

West Lafayette, Ind.—Two wings of men's dormitory at Purdue University damaged.

West New York, N. J.—Three embroidery firms damaged.

Hudsonville, Mich.—Main bldg. and lumber storage sheds of Hudsonville Box and Basket Co. destroyed.

Milan, Mich.—People's church and contents destroyed. Oil burner.

Charleston, W. Va.—Business bldg. occupied by dispatching office of Skyline Cab Co., cleaning and pressing firm and lunchroom.

Berryville, Ark.—Three bldgs. occupied by Berryville Hatchery, Davis & Taylor Upholstery Shop, D. L. Glaves Hardware Store and Conrad & Russel Appliance Store, damaged.

Hollister, Cal.—Taggart Dried Fruit Co. plt., destroyed.

Oakland, Cal.—Cochran and Celli Motor Co. destroyed.

Louisville, Ky.—Elevator bldg. of Continental Grain Co. damaged.

Berth Branch, Mich.—Fred Fitch Ford salesroom and garage, destroyed. Ignition of gasoline fumes.

Saginaw, Mich.—Immanuel Lutheran Church, Frankentrost, destroyed. Defective wiring.

Saginaw, Mich.—Florida Market and United Trucking Service destroyed.

Butler, Mo.—The Old Opera House and A. C. Jennings Grocery storeroom, destroyed.

Wibaux, Mont.—Accident elevator destroyed.

Penn Yann, N. Y.—Kennedy Bibbs dairy farm damaged. Electric sprayer.

Portland, Ore.—Division bldg. housing four stores destroyed.

Philadelphia, Pa.—National Precision Castings Corp. plt. damaged. Explosion.

Scranton, Pa.—Calvey Motor Co. bldg. damaged. Explosions.

Seattle, Wash.—Globe Electric Co. bldg. destroyed.

Montello, Wis.—Main bldg., Montello Grinite Works, damaged.

Fayetteville, Ark.—The main shop and specialized machinery of the Budd Post & Hardware Co. damaged. A quantity of finished barrel staves were destroyed.

Middletown, Conn.—Central School damaged.

Chicago, Ill.—Bldg. occupied by Metalcraft Corp., picture frame mfg.; Rolling & Engraving Mill, metalworkers, damaged. Ignition of lacquer in dip tank.

Chicago, Ill.—Office and whse. bldg. occupied by Well Sales, radio and electrical supplies; Harte Mountain Products Co., bird seed suppliers; Kaempfer Bird Food Co.; B. F. Goodrich Co., automobile and home supplies whse.; National Scale Co.; Studio and Quilting Service; Acme School of Floral Designing; office supplies

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Floodlighting
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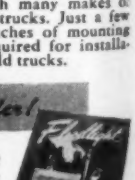
ONAN *Portable* **ELECTRIC PLANTS**

EASILY CARRIED
Lightweight and compact, Onan Electric Plants can be hurried to the spot where needed. Supply current for floodlights, electric saws, drills and other tools. Always ready for instant use.

FIT INTO SMALL SPACE
Compact, self-contained Onan Electric plants can be ordered as standard equipment with many makes of new fire trucks. Just a few square inches of mounting space required for installation on old trucks.

Write for **FREE** *Folder!*



New folder shows many lightweight models for fire department use. D.C.: 1200 to 5,000 watts. A.C.: 350 to 3,000 watts. Large plants for emergency operation of signal systems to 35,000 watts.

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firm; Frank Ryser Co., cheese; Confection Cabinet Corp., vending machines; Williams and Meyer, photostats; C. C. Furling, interior decorator; Gaymont Laboratories; Super Popcorn Co.; Maddox Closet Accessories Co.

McCracken, Kans.—Lubri Gel plt. damaged.

Medford, Mass.—Rita Marie Riding Academy destroyed.

Benton Harbor, Mich.—Core room of Benton Harbor Maleable Industries, Inc., damaged.

Milan, Mich.—People's Inter-denominational Church damaged.

Red Lake Falls, Minn.—Helm Implement Co. destroyed.

Neversink, N. Y.—Whse. and machine shop of S. A. Healy Construction Co. destroyed.

Wadesboro, N. C.—Bldg. occupied by James A. Leak Hardware Store, H. V. Allen Clothing Co., Poter's Photograph Studio, law office of Mayor Barrentine T. Hill and Hobo Social Club destroyed.

Cleveland, Ohio—Factory of Spero Electric Co. destroyed; also Wise Metal Spinning Co. destroyed.

Columbiana, Ohio—Bundy Restaurant and Isaly Dairy Store destroyed.

New Boston, Ohio—Elks Home destroyed. Defective gas unit.

Anchorage, Alaska — Anchorage Co-Operative Supply, destroyed.

Louisville, Ky.—The Student Union bldg. of the University of Louisville damaged.

Kittery Point, Me.—Pepperell apts., summer hotel, destroyed.

Holmesberg, Pa.—William M. Frost & Co. lumber yd. damaged. Brush fire set by two boys.

Toano, Va.—Planing mill in lumber yd. owned by S. G. Sheldon & Sons, destroyed.

Gallagher, W. Va.—General store, affiliate of Eastern Gas & Fuel Assn., a postoffice and small grill, destroyed.

Cornwall, Ont.—F. W. Woolworth Co., Ltd., store damaged.

North York, Ont.—Large barn owned by Monarch Construction Co. destroyed. Caused by overheated stove. Barn contained large quantities of plumbing materials, household fixtures, bathtubs and furnace equipment.

Bonners Ferry, Ida.—Three business establishments, destroyed.

Auburn, Ind.—Main plt. of Auburn Foundry, Inc., demaged.

Fort Wayne, Ind.—Large A & P super-market destroyed.

Hoboken, N. J.—Apt. bldg. destroyed.

Punxsutawney, Pa. — Evangelical Lutheran Church damaged. Overheated furnace.

Anchorage, Alaska—Car repair shop of Alaska Railroad Co. destroyed.

Cardiff, Alta.—Tipple at Dundrance Coal Mines, destroyed.

Toronto, Ont.—David Hornell Memorial Legion Hall, Mimico, destroyed.

Verdun, Que.—Business bldg., occupied by Star Dyers & Cleaning Beg'd., destroyed.

Montgomery, Ala.—Trinity Presbyterian Church damaged.

South Bend, Ind.—Wells Mfg. plt. damaged.

Bettendorf, Ia.—Corn picker assembly plt. at J. I. Case Co. plt., destroyed.

Minneapolis, Minn.—Minneapolis Hide & Tallow Co. damaged.

Sunapee, N. H.—Burkehaven Hotel destroyed.

Pewaukee, Wis.—Chicken house on Lambrecht Farms destroyed.

Brooklyn, N. Y.—The 4-story, 90-year-old Roman Catholic Church of the Sacred Hearts of Jesus and Mary and St. Stephen, destroyed.

Victoria, B. C.—Victoria Daily Province damaged.

Vancouver, B. C.—Parks Hotel damaged.

Miami, Fla.—Two salvage yds. damaged.

Chicago, Ill.—Plts. of Randolph Wholesale Grocery Co. and McLeod & Co. furniture plt. damaged.

Indianapolis, Ind.—King's Indian Billiard Co. damaged. Cleaning compound used on floors.

Danville, Ky.—The Broadway Elementary School destroyed.

Roseberg, Ore.—Marshall Wedds Hardware store destroyed.

Wausau, Wis.—Otto Alsson's bakery and a dance studio and apts., damaged.

Birmingham, Ala.—Watson Casket Co. destroyed.

Madison, N. C.—Carolina Tobacco Whse., Vaughan's Market, Masonic Lodge Hall, Pool Hall and Barber Shop, destroyed. Madison Jewelry Co., Mill End Store and offices, damaged.

Hopewell, Va.—Large tractor-trailer damaged.

Verdun, Que.—The 75-yr-old Grand Trunk Boating Club destroyed.

Miami, Fla.—Feed and fertilizer whse. of General Mill, Inc., damaged.

Alton, Ill.—Interior of the Brown Hornsey Printing Corp. bldg. damaged. Defective furnace.

Baltimore, Md.—Hawkins Point Pier, owned by U. S. Army, destroyed. Troopship George Washington, destroyed. One tugboat owned by Merritt, Chapman & Scott, destroyed. Fire boat Torrent damaged.

Wilson, Okla.—The Rexroat school damaged.

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STERLING, for years has combined highest quality materials with precision manufacturing to provide sirens that will operate reliably year after year without failure. There's a STERLING Siren for every emergency use.

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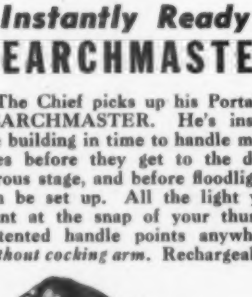
SEARCHMASTER

The Chief picks up his Portable SEARCHMASTER. He's inside the building in time to handle most fires before they get to the dangerous stage, and before floodlights can be set up. All the light you want at the snap of your thumb. Patented handle points anywhere *without cocking arm.* Rechargeable.



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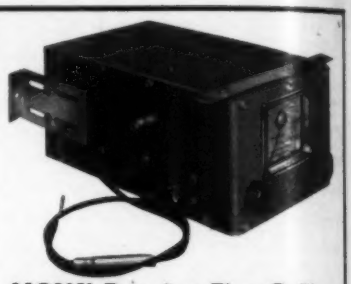
CARPENTER MFG. CO.
200 Master-Light Bldg.
BOSTON-45-SOMERVILLE
MASSACHUSETTS

Cheticamp, N. S.—Royal Bank of Canada branch, genl. store and RCMP hdqts. and two houses, damaged.
Chicago, Ill.—Distributing Corp. of Illinois (coin-operated machine distributors); hardware store of J. Manikowski and Automatic Venetian Blind Laundry and bldg. occupied by W. Sipka, florist, damaged.
Lakota, Ia.—Elevator and grinding mill of A. L. Schissel destroyed.
Grayling, Mich.—Grayling Bottling Co. plt. destroyed.
St. Louis, Mo.—Whse. of Sloan's Moving & Storage Co. damaged.
Dallas, Tex.—The Lyon Gray Lumber Co. plt., East Jefferson, damaged.
Philadelphia, Pa.—Plt. of William M. Frost Co., Holmesburg, damaged.
Nashville, Tenn.—Dickey Linoleum & Carpet Co. damaged.
Louisa, Va.—Woolfolk & Co. garment plt. damaged.
Anchorage, Alaska—Two Anchorage restaurants destroyed.
Montreal, Que.—St. Frances Cabrini School, Rosemere, 17 miles northwest, destroyed.
Phoenix, Ariz.—Barn at state fairground destroyed.
Tucson, Ariz.—Young Modern's dress shop, damaged.
Morrilton, Ark.—Plt. of Morrilton Lumber Co. and adj. J. T. Robinson wholesale grocery co., destroyed.
Grevenhurst, Ont.—High school, damaged.
Fairbanks, Alaska—Co-operative Drugstore, destroyed; North Pole Bakery, destroyed; Boutlet & Kohlers' offices, destroyed; Dr. E. I. Baggens offices, destroyed; News-Miner, damaged. Explosion.
Santa Monica, Cal.—Santa Monica Delmar Beach Club damaged. Defective kitchen flue.
San Francisco, Cal.—Merrill's Drugstore damaged.
Chicago, Ill.—Bldg. occupied by W. Simon, bakery store; S. Chrissman, grocery store and adj. bldg. occupied by Fullerton Laundry and apts. damaged.
North Platte, Neb.—The Dempster Furniture Store damaged.
Jackson, Ohio—Jackson County Courthouse destroyed.
Glen Lyon, Pa.—Bldg. occupied by Benjamin DeLuca Myers Dept. Store, LeLuca's Grocery Store, Barber Shop of Leonard Namowicz, damaged.
Oakland, Cal.—Oakland Airport, damaged. Ignited gasoline.
Lake Wales, Fla.—Apt. bldg., Mountain Lake, destroyed.
Burlington, Ia.—Flint Hills Manor, Government housing area, occupied by Shellady's food store, Stop & Shop Store, barber and beauty shop, destroyed.
St. Thomas, Ont.—Masonic Bldg. destroyed; also McPhillips Electric Store, Ashbury Men's wear store, Johnson's Drug Store, Simpson's Mail Order Store, A. N. Martin Paint Store, Myers Photo Studios, Reward Shoe Store, Knapp Hardware Store, also destroyed.
Yorkton, Sask.—Crolls Clothing Store destroyed.
West View, B. C.—Wharf and freight shed damaged.
Griffin, Ga.—Bldg. occupied by Singer Sewing Machine Shop, the Cloth Shop, Goen Printing Co. and Griffin Utility Club & Thrift Shop, damaged.
Toccoa, Ga.—Vocational shop bldg. at Toccoa Falls School.
Dwight, Ill.—Boiler room, garage and apt. of Dwight Greenhouse Co., destroyed.
Naperville, Ill.—Slick and Kockley bldg., occupied by Oswald Pharmacy, Army Surplus Store, A. B. Slick dental office and two apts.
Jeffersonville, Ind.—Falls Cities Transfer Co. whse. destroyed.
Richmond, Ind.—Salvage and steel plt. of Sam Jaffe, damaged.
Tecumseh, Mich.—Bldg. occupied by Baldwin Hardware Co. store and Eagles bar and lodge hdqts., destroyed.
Macon, Miss.—Noxubee County Courthouse, destroyed.
Paramus, N. J.—Wayside Furniture Co., Route 4, damaged.
Leaksville, N. C.—Boulevard Theatre destroyed.
Crooksville, Ohio—Watt Pottery destroyed.
Huntsdale, Pa.—Home for the Aged, owned by Church of the Brethren, damaged.
Barrie, Ont.—Camp Borden Ice Arena, destroyed.
Halifax, N. S.—Main bldg. of Mount St. Vincent College, Rockinham, and a govt. bldg. destroyed.
Westview, B. C.—Westview Wharfs and freight sheds, destroyed.
Naperville, Ill.—Apt. bldg. destroyed.
Ypsilanti, Mich.—Riverside Bowling Alley and barn destroyed.
Mound City, Mo.—Exchange Bank of Mound City, post office, and electric shop, a dentist's office and other offices and shops adjoining State Theatre bldg. damaged.



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No fire officers (regular or auxiliary) should be without this essential piece of equipment. For with the new MONITORADIO 6-Volt Mobile FM Radio Receiver you can follow dispatch directions instantaneously. A complete receiver — not a converter! Covers all 2-Way FM Radio-Telephone Communications. Well-engineered and built of quality parts. Tunes frequency of 152 to 163 megacycles. For full information, see your parts jobber or write us today!

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Also, AC-DC Model PR-31 for 30 to 50 Megacycle Band and AC-DC Model PR-8 for 152 to 163 Megacycle Band — both models $44.95 each NET.

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— AMERICA'S "No. 1" PORTABLE FIRE-FIGHTER!

Powerful, dependable, and easy to transport, Pacific Pumpers conform perfectly to fire protection needs in forests, industries, resorts, small communities. The Model W, most recent addition to an extensive line, is powered by a 4-cycle air-cooled engine, delivers 14 g.p.m. at 300 p.s.i. or 22 g.p.m. at 50 p.s.i., weighs only 90 lbs. Write for helpful literature on portable pumpers, and catalog of hose, nozzles, fire-fighting accessories.

PACIFIC *Marine Supply Co*
FIRE EQUIPMENT DIVISION
SEATTLE 1, WASHINGTON

Catskill, N. Y.—Catskill Daily Mail bldg. of the Daily Mail newspaper office damaged.
Murphy, N. C.—The plt., kiln, and office of Cherokee Lumber Corp. destroyed.
Upper Sandusky, Ohio—The 2-story, brick and cement bldg. plt. of Ohio National, Inc., an hydraulic lift mfr., destroyed.
Nyssa, Ore.—Polar Storage destroyed.
Tyrone, Pa.—Store and whse. of Cove Farm Bureau Cooperative damaged.
Knoxville, Tenn.—Knoxville Seed Co. damaged.
Childress, Tex.—First State Bank of Childress, the Gem Theatre and several store bldgs. damaged.
Houston, Tex.—Mansion of Gus Wortham, Flagg Brothers, Cut Rate Linen Store, Kruger's Jewelry store, National Shirt Shop, Shaw's jewelry and the Alaskan Fur Co. destroyed.
Richmond, Va.—Inta-Roto Machine Co., printing press and paper processing machine, destroyed.
Moses Lake, Wash.—Majonnier Storage whse. destroyed. Spontaneous ignition.

World Wide Fire News

By Roi B. Woolley

London's Fire Alarms to Stay

Further light has been thrown on the much discussed—and cussed-question of the removal of the street fire alarm boxes and the substitution of telephones for transmitting fire alarms in London, by the assurance recently given the Wandsworth Borough Council—largest of the metropolitan boroughs—that the policy of withdrawing street fire alarms in the county is not to apply in areas where the telephone exchange is manually operated or where the number of public telephone kiosks (booths) is inadequate.

This assurance was given in reply to a strong protest by Wadsworth against the decision to deprive the general public of the protection afforded by the latest approved street fire alarms of Great Britain.

Meantime, it is reported Birmingham, Liverpool and Manchester (Eng.) are extending their street fire alarm systems "because a street fire alarm provides the quickest and most dependable means of summoning aid."

The question of discontinuing street fire alarm boxes in London stemmed from an effort to reduce the number of malicious false alarms and to save a reported £20,000 a year in maintenance of more than 1,700 boxes and station equipment. "The London Common Council has failed to state how malicious alarms by telephone are to be prevented, or even reduced" states the British publication "Fire" in commenting on this development.

Incidentally, one of its subscribers has this to say: "Following the breakdown . . . on the Underground Railway on November 20 when several passengers fainted, others on reaching the surface, naturally wanted to telephone their offices or homes. Some of the public telephones were obviously out or order; the others had long queues waiting to use them. I asked myself, what would happen in event of a fire with fire alarm boxes removed and only public telephones to call the brigade?"

* * *

Two Dead, 16 Hurt in Columbia Port Fire

A six-hour fire on January 9 in the port of Barranquilla, Colombia, brought death to two and injuries to sixteen persons and destroyed cargo worth $500,000.

But for the operation of new fire extinguishing equipment that terminal authorities had purchased, the disaster

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The toughest, safest, longest-wearing helmet on the market; made of selected top-grain leather, specially treated; "the daddy of them all," and still the favorite in the biggest departments of the country.

THE "CLIFTON"

A replica of the famous "New Yorker" as to style, but made of the new CAIRNS "Flintflex" plastic; has a new type of suspension, with a formable headband that fits any head shape.

THE "SENATOR"

A superior one-piece aluminum helmet in regulation style; corrugated crown for greater stiffness; combines lightweight comfort with strength and durability.

We offer a PERSONAL SERVICE to firemen, giving special attention to individual needs or preferences as to unusual sizes and shapes, special front pieces, etc.

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ALLWOOD, CLIFTON, N. J.
Outfitters to Firemen Since 1836

Write for Catalog 331

PRICES TO SUIT ALL BUDGETS

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FIRE APPARATUS

ONE OF 4
1000 G.P.M.
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MODEL 1600/1000
PUMPERS
SERVING ROANOKE
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... (You Can't Fool Your Own Hometown!

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ROANOKE, 16, VIRGINIA

MORNING PRIDE
RUBBER or DUCK
FLEECE LINED
FIRESUITS

NEW DOUBLE DUTY CHEST PROTECTOR

All you do is fold together and snap to coat for Summer wear. Then unsnap in Winter for full protection of chest against cold and water.

Detachable Linings
MITTENS - SUSPENDERS
Morning Pride Mfg. Co.
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Here is DEPENDABLE
POWER
for floodlights
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"U. S." Electric Plants are famous for economy, rugged construction, and *dependability*. A complete line of units for fire department needs. Write for information.

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430 Nebraska St. Oshkosh, Wis.

would have been far greater, it is said. As it was, the flames, visible for 25 miles, fed by 300 bales of cotton, threatened the destruction of millions of dollars worth of cargo within the port area.

The explosion of two drums of sulphuric acid being unloaded from the Grand Colombian liner Cuidad de Maracaibo, followed by the chain explosion of scores of drums on the pier, started the roaring fire. Damages to the Cuidad de Maracaibo were reported not serious. Five other ships berthed at the terminal were moved to safety and escaped damage.

* * *

"Crackpot" Blamed for Troopship Sabotage

Military officials of Seattle at first reported that damage to a naval transport in that port was full-scale sabotage, but later, however, recanted and claimed it was evidently the work of a "malicious crackpot."

According to navy authorities, the damage was confined to five motors where a spike had been thrust into armature wires. The ship the Marine Phoenix, was docked at Seattle after running troops and supplies to Korea. The destruction was believed to have been done while the 12,000-ton vessel was undergoing repairs there. Investigation following discovery of the damage disclosed that the work was apparently done by someone who had a grudge and "wanted to make sure the damage would have to be repaired," it was reported. No arrests were made.

* * *

Aerial Arsonist Hunted in Fatal Texas Field Fires

Officers hunted what was suspected to be aerial arsonists, following a series of brush and grass fires in southeast Texas, during December, which killed two women, scouraged the country and destroyed homes.

In Central Texas, another blaze roared near the little town of Keene, housing some 500 Seventh Day Adventists.

The fire victims were a 90-year-old woman, fatally burned in a grass fire near her home in Lufkin, and a 46-year-old woman who succumbed following efforts to fight a grass fire near Bessamay. A third 72-year-old victim died when fire destroyed his small home during a weekend outbreak of grass fires around the latter city.

The Galveston County sheriff's office received several reports of a mysterious small plane flying low to drop objects in dry grass. Witnesses said fires broke out immediately afterward.

* * *

From the News Ticker

Fire burned out nearly a quarter of Hitler's Beerhall, the famous Hofbrauhaus, in downtown Munich (on January 7) in the middle of a carnival celebration. . . . A 15-year-old Japanese girl confessed to killing two infants, attempting to strangle another, then burning the home of her employer in Japan because she "was tired of baby sitting and wanted to return to my family." . . . A delayed dynamite blast killed 72 railway workmen and injured 80 in the Santa River Valley of northwestern Peru in January. . . . Matches and lumps of solidified alcohol were found January 1 among barrels of gasoline unloaded from the American freighter Francis MacGraw for American troops at La

The NEW Flame Proofed
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A necessary part of every Fire Company's equipment is the Fire Fighting Broom. This is the B-E-S-T!

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★ Flame Proofed Fibres
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★ Heavy gauge rustproof metal Head
★ Strong hickory handles
★ Overall length 60"
★ Meet U. S. Forestry and City Fire Department Specifications
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INVINCIBLE
NOZZLES

Fireboat Tower Nozzle with full Transverse Control

Figure 114-B — one of many — made by pioneers in nozzle manufacture.

"ALL AMERICAN CHOICE"

Latest Design

Operated by Remote Control

F. N. McINTIRE BRASS WORKS
Boston, Mass.
1837 — 1951

Pallice, France. Authorities immediately established special police and fire protection. Communist-led dock members said the cargo would not be handled. . . . A $250,000 damage suit charging government negligence—fifth of its kind up to December 16 last—was filed by the widow of a stevedore killed in the South Amboy explosion of last May. . . . Telegraph service in Yonkers, N. Y., was paralyzed by a December fire in the Western Union Telegraph Company's office at 6 Hudson St. at 6:00 a.m. . . . Mrs. Mattie Rinard, 86-year-old sister of the late Senator William Borah of Idaho, was found burned to death in her home in Fairfield, Ill., December 15 last. It is believed her clothing caught fire while she was cooking and she jumped into bed in an effort to extinguish the flames. Bed clothing caught fire also. . . . Fire of undetermined origin destroyed a freezing chamber at the Swift Packing Company's cold storage plant in Rosario, Argentina, with loss of $350,000 (delayed report). . . . The contents of a fire extinguisher and one bucket of water were used to extinguish a fire in a mail box just outside the North Hempstead Town Hall, at Manhasset, L. I., which destroyed 460 pieces of mail. Verdict of "accidental" was given. . . . Citizens (and to a lesser extent some firemen and police) had a case of jitters as a ten-wheel Army truck loaded with 20 tons of explosives was stalled from 2 to 5 p.m. not long ago in the East New York section of Brooklyn. . . . A delayed report states that a huge fire raged through the jungle of Nairobi in late August sending beasts stampeding. Fire may have started by eruption of Kilomanjaro, Africa's largest volcano. . . . Reports are received concerning a heavy explosion that rocked the big Mantecatini chemical works in Carrara, Italy, killing one and injuring six workers. It is disclosed this was the third serious industrial accident in northern Italy within the same month. Police probing sabotage.

* * *

Freak Fire Kills Worker

George Kaforski, 35, a workman, was killed January 12 last while inside a large ventilating duct of a building at 615 N. Aberdeen, Chicago, Ill.

Kaforski had been lowered on a bosun's chair into the duct, which was attached to the building, to clean it. According to Second Deputy Fire Marshal Jeremiah McAuliffe, lacquer powder had accumulated in the duct, which was used to carry away paint fumes from the third-floor workshop of Stiffel Co., lamp manufacturers.

The powder ignited in some way, burning Kaforski to death and spreading to the lamp company's paint rooms. Damage estimated at $5,000 was caused by the fire.

* * *

St. Paul Fireman Dies in Crash

Samuel Jurgensen, pipeman attached to Engine 10 of the St. Paul Fire Department, died of injuries suffered when the truck on which he was riding to a fire at Randolph and Lexington streets, collided with an oil transport truck.

Fireman Jurgensen, a member of the department for 32 years, was taken to the hospital suffering from multiple injuries, where he died. His record in the department was reported as "excellent."

No fire developed from the crash and no other firemen were seriously injured.

NOW, MORE THAN EVER
Safeguard your hose

Don't gamble your $1.60 hose against damage from mildew and rot. Fire hose is EXPENDABLE—EXPENSIVE—and in short supply, protect it with CIRCUL-AIR, the electrically operated HOSE DRYER which circulates prewarmed fresh air through coiled wet hose at the rate of 5 to 6 air changes per minute. Circul-Air is designed to lengthen hose life; improve the appearance and functional design of new fire houses; and to save floor space and hard work. NO OTHER METHOD is so fast—so easy to use—so economical.

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CIRCUL-AIR
THE AIR CONDITIONING FIRE HOSE DRYER

THESE TOWNS . . . AND 1000 OTHERS PROTECT THEIR HOSE WITH CIRCUL-AIR

AUGUSTA, GA. - ALLENTOWN - BOSTON BURLINGTON - CHICAGO - COLUMBIA, S. C. - COLUMBUS - ERIE - DETROIT GALVESTON - GREENBORO - MEMPHIS LAKE CHARLES - LOUISVILLE - MILWAUKEE - NEWARK - OKLAHOMA CITY OMAHA - PROVIDENCE - ROCHESTER SEATTLE - SHREVEPORT - SANTA FE TOLEDO - TWIN FALLS - TRENTON WINNIPEG - WHEELING - MIAMI - NEW BRITAIN - BUFFALO - GRAND RAPIDS HOUSTON - YOUNGSTOWN - WASHINGTON, D. C. - DAYTON - FITCHBURG BIRMINGHAM - NEW HAVEN - AKRON JACKSONVILLE - KANSAS CITY - PENSACOLA - MERIDEN - ST. PETERSBURG PHILADELPHIA

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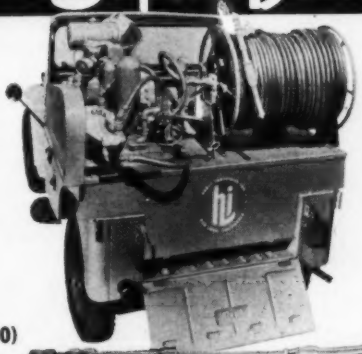
NEW! JEEP TRANSPORTABLE Super-Booster

A mighty Jeep load of rugged fire fighting equipment! The Hurst Super-Booster is complete and ingeniously engineered for compactness and simplicity. The Hurst pump is of the opposed twin-piston, positive displacement type with a heavy duty forged crankshaft operating on sealed ball-bearings. Hurst also makes Super-Boosters in two-wheel trailer models and for use on pick-up trucks.

- 80 Gallon Tanks
- 600 psi; 4 to 6 gpm (or 8 to 10)
- a SUPERB stand-by unit
- Equipped with Adjustable Unloading Regulator



5 H. P. (or 7½) Engine
•
400 Foot Reel Capacity
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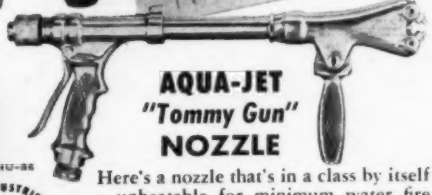
Fits the CJ-3A Universal Jeep



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Here's a nozzle that's in a class by itself—unbeatable for minimum water fire extinguishment. Impinging jets develop wide mist-like fan without wasting pump pressure. Instant change from stream to fog plus any shape in between.

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Subsidiary, CARDOX CORPORATION, Chicago, Illinois
San Jose, California

FIRE and POLICE UNIFORMS

SHIRTS
BADGES
CAPS
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Read what this pleased customer says:

"We have received all our uniforms and badges and believe me we are all pleased — fine fit and fine uniforms." (John A. Johnson, Treasurer, Golden Valley Fire Dept., Minneapolis, Minn.)

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or
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80-20 45th Ave., Elmhurst, L.I., N.Y.

He leaves a widow, a son, also a city fireman, and a daughter—the wife of another city fireman.

With Our Readers

Call System for Volunteers

To the Editor:

I was interested in Mr. Woolley's article commencing page 974 of your December issue. Only at Christmas I was looking at a similar installation installed in one of our old cathedral cities, Lichfield, Staffordshire.

This mains plug-in call system was devised by a former city electrical engineer, Mr. W. Russell, a number of years before the war. In those days, of course, the city brigade was a volunteer organization, and each member had a call bell unit that he could carry around with him and plug-in to any connection on the city electrical circuit.

I am told the system continues to work admirably, though it is of course restricted, at Lichfield anyway, to the original municipal electrical system. A detailed description of this type of call system appeared in our issue of December 1946 (478).

Yours sincerely,
GEOFFREY F. D. PRATT, Editor

"Fire Protection and
Accident Prevention Review"
London, England
Jan. 5, 1951.

Hotel Protection

To the Editor:

I have been struck by some of the descriptions of fires in your magazine. I recently spent a night at the ..... Hotel in Trenton, Missouri, a five-story brick structure with an enclosed stairway along the elevator and a long hall on each floor extending to the outer wall of the building at the rear end only. A fire escape was provided at the end of that hall but the windows leading on to the fire escape had been blocked by large exhaust fans installed to make it possible to sleep in the building in extremely hot weather.

I do not know whether the State of Missouri has a Fire Marshal or Fire Inspector, or not, but if so, a holocaust at some future time may be saved by calling the matter to his attention.

CHAS. H. BLACKMAN,
Chief Engineer, Louisville & Nashville Railroad.

Bay City Fire Department Capitalizes on F. E. Editorial

To the Editor:

With the assistance of your August editorial ("A Warning to All Fire Departments") Dr. F. Foster, president of the Bay City Fire Department Advisory Committee, was able to convince our "economy minded" commissioners of the grave need of immediate purchase of new fire equipment.

Earlier this year the Commissioners approved the purchase of one 1,000 G.P.M. triple combination pumper. However, they refused to include a high pressure fog truck and chief's car which

The Fireman's Choice

Powerful Light
When he needs it—where he needs it
Big Beam
PORTABLE ELECTRIC HAND LAMPS

Model 700
2000-foot beam
Most powerful, heavy-duty hand lamp of its size. Adjustable 6-inch head. Operates on four standard No. 6 dry cells.

Model 211
1500-foot beam
Popular price, light weight, easy to carry. Adjustable 5-inch head. Operated on two standard lantern batteries.

Write for folder on complete information on these and other Big Beam dry-cell and storage-battery models.

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the Advisory Committee also requested in this order.

That was before Korea! Since this development, the Advisory Committee made an emergency request for two 1,000 G.P.M. triple combination pumpers, one 100-ft. aerial truck (which the Commissioners turned down a year ago), and one high pressure fog truck. Surprising as it may seem, they were all accepted by a close vote. Besides this, the Commission approved the standardization of apparatus instead of the previous method of taking bids.

This purchase is mainly due to the work of Dr. Foster, who gave an excellent "sales talk" in behalf of the fire department. The Commissioners were especially impressed by the Committee's plan of having the manufacturers finance the equipment over a three year period at 6% interest.

The new equipment will replace a scrapped city service ladder truck, a 500 G.P.M. commercial front-end pumper, a hose wagon, a 30-year-old 750 G.P.M. pumper and a 35-year-old 1,000 pumper (the last two also being first-due companies). You can readily see from this that the new equipment is necessary, particularly in case of all-out war.

I wish to personally express my sincerest thank you for "spearheading the attack" with your timely editorial.

C. F. GUNTERMANN
Bay City, Mich.

Editor's Note: Many fire chiefs have in the past made effective use of the editorial and advertising pages of FIRE ENGINEERING *to bolster their budget requests and improvement recommendations. This practice assumes special importance in a period like the present emergency.*

Fire Training in Ontario

To the Editor:

In the very kind and excellent article which appears at page 906 of your November, 1950, issue under the title "Ontario Fire Marshal's Office Adds Training Apparatus," there are a couple of inadvertent inaccuracies which I would be obliged if you would correct:

(1) In Canada there are "Dominion Grants" made to municipal fire departments. There is no comparable system in Canada to that whereby the U. S. Department of Education makes federal funds available to aid in the training of firemen in the various states. In Canada matters of fire training are solely under the jurisdiction of the various provinces in Canada, which are very similar in governmental and constitutional set-up to the states in the United States, and it is solely provincial funds that support fire training at the provincial (or state) level.

As well as our extensive fire training program in Ontario, the Provinces of British Columbia, Alberta, Saskatchewan, Manitoba, Quebec, New Brunswick and Nova Scotia all have fire training programs which in some instances extends to ownership and use of their own motorized equipment and in others where equipment owned by a local municipality is used. To all of this the Canadian Government never has contributed one cent, and such a training is purely a provincial responsibility under the laws of Canada.

(2) There is probably a typographical error in giving the size of our new fire pumper which you mention as "320

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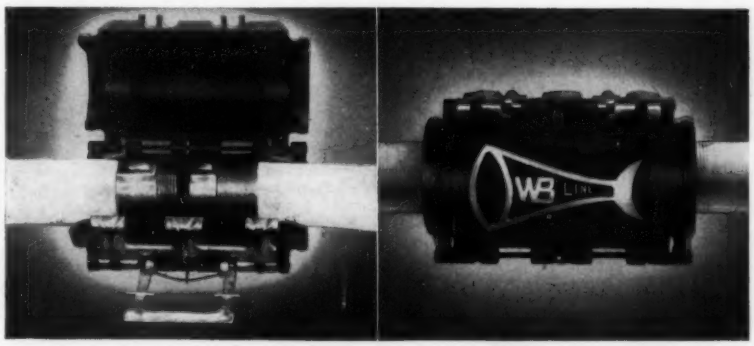

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Toronto, Ont. Yours faithfully,
WM. J. SCOTT,
Fire Marshall.

Pier Fire

(*Continued from page* 113)

alarms dispatched in quick succession, reached the scene, tidal conditions prevented their bringing their heavy streams into effective operation on the fire. After their hawsers burned through, four craft, which had been tied up, floated from the pier, their superstructures afire. A tugboat drifted into Thom's Cove; one large barge, which was empty, ran onto the Fort Armistead beach a quarter of a mile away. The other barge, and a floating pile driver, both aflame, drifted aimlessly in the cove.

By 5:00 p.m. six alarms had been sent in, bringing heavy assignments of fire fighters. At 5:27, Fire Chief Michael Lotz sent in two more. And at 7:23 p.m. he dispatched the ninth and tenth alarms. This brought the total number of Baltimore firemen on the scene to about 500, one-third the entire department personnel. Altogether more than 70 pieces of fire fighting equipment cluttered the narrow spit of land, from the point of which the huge pier jutted.

At first, the strong wind, which drove the Washington against the pier, made it doubtful if the big ship could be moved. Six members of the Maritime Administration were aboard the transport at the time of the start of the fire. They are said to have delayed attempting to move the vessel, however, until orders to do so were received from Washington. When they finally attempted to free the vessel from the pier, they were repelled by the advancing flames, and had to run to escape. They were ultimately removed from the tip of the pier by a Coast Guard boat just before the entire structure became fully involved.

The maintenance crew of the Alexander was more fortunate. They were able to cut the ship free and the favorable wind, with aid of tugs, shifted her out into the harbor where she was anchored, with only a scorched side.

Fire Operations Handicapped

Fire fighters faced many handicaps in battling the blaze. The location of the pier and ships, necessitating funneling the land attack almost entirely from the single land approach; the lack of space in which to maneuver apparatus and equipment; the long hose stretches necessitated to operate some pumpers, lined up almost bumper to rear-fender, taking suction out of the shallow water alongside the roadway; the unfavorable weather conditions, and the inability to carry the fight aboard the transport, once the ship was involved, made for one of the toughest struggles the department has had in many years, according to Chief Lotz.

Notwithstanding these drawbacks, at first firemen believed they might keep the fire from the Washington, but a heavy explosion, cause unexplained, hurled blazing timbers and part of the pier under the stern of the ship. A few minutes later fire had taken hold, and fanned by the wind, raced through her decks. Fire fighters were driven from their positions to a point about 200 feet from the pier bulkhead, where they made a stand, leaving the task of attempting to control the ship fire to the fireboats.

Before 11:00 p.m., Chief Lotz gave up hope of stemming fire on the transport and called off the fireboats for fear the vessel might capsize, as did the Normandie. About an hour later, however, plans were changed, and the boats renewed their attack to cool the ship's red hot hull.

At 8:15 p.m., noting that the pier

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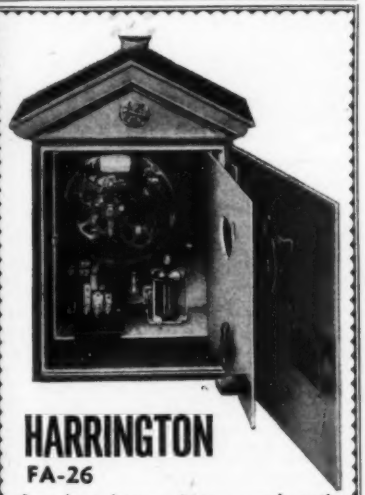

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seemed to be sinking dangerously, Chief Lotz ordered all men off. The fire by this time had eaten through pilings 400 feet from shore. By 9:00 p.m. all but about 180 firemen were ordered back to their stations and this force was maintained to play water on the burning pier and stand by in case of emergency.

Meanwhile the seagoing firemen on the city's four fireboats, the Torrent, Deluge, Cataract and Cascade, were fighting the blaze on the Washington and the outer end of the pier. The Torrent at 8:30 p.m. worked in so close to the burning troop ship that its pilot house was almost completely engulfed in flames. The fire burned the paint on the pilot house and broke the windows. First Mate John T. Hoffman was burned about the face in helping put the fire out.

Because of tidewater and the height of the fireboats' nozzles above the waterline, they were unable to operate streams effectively on the flames. Attempts were made to get water on the pier's under pinning by directing hose streams into the water at an angle so as to deflect the spray onto the underside. Some firemen attempted to take hand lines below the pier deck. About 7:00 p.m. an explosion shook the 70-foot diesel tugboat Catbird, which had drifted burning from the pier, when the fire first began. The force of the blast knocked down two men on the Torrent, nearby,

By 11:00 p.m. large sections of the pier were crumbling into the water. It had burned from tip to tip for nearly seven hours, firemen being practically powerless to save any of it. At midnight the 700-foot Washington was blazing furiously, although four fireboats were throwing tons of water into the hull. She had a list of about 5 degrees to port.

Considering the number of firemen who operated at the scene, and the conditions under which they worked, it is considered fortunate that no more than seven were injured, none of these gravely.

"Box 414" Buffs Do Good Work

The fire saw the marshaling of all available disaster agencies. Prominent among these was the Box 414 Association, the city's fire buff's organization. Before the flames had burned out, the club members had served 1,000 sandwiches, 75 gallons of coffee and 10 gallons of steaming hot bouillon and 244 dozen buns. This was the biggest night in the history of the 3-year-old organization and the 31 members, who worked unceasingly, had their two brand new 10-gallon coffee-making urns in service simultaneously for the first time since they were installed last Christmas.

The troopship Washington will be remembered as the vessel which took President Woodrow Wilson to Europe in 1918 for the peace conference.

Following the investigation into the fire by Fire Chief Lotz, it was disclosed that the pier might have been saved had a sprinkling system with which the pier was originally equipped not been permitted to deteriorate. The system has been inoperative since 1947, when the Army left the pier. Fire department officials say the sprinkler system was left to rot away and many of the valves and pipes were stolen. If the system had functioned, it is considered probable that both the pier and the liner George Washington might have been saved.

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FEBRUARY, 1951

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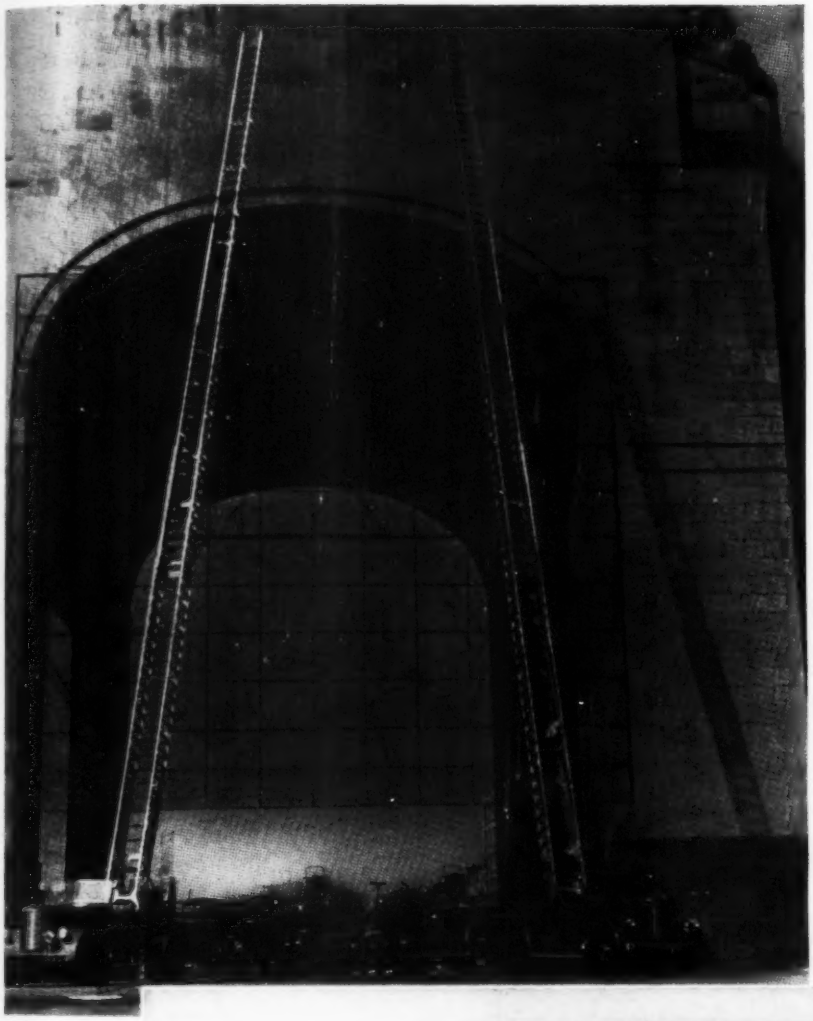

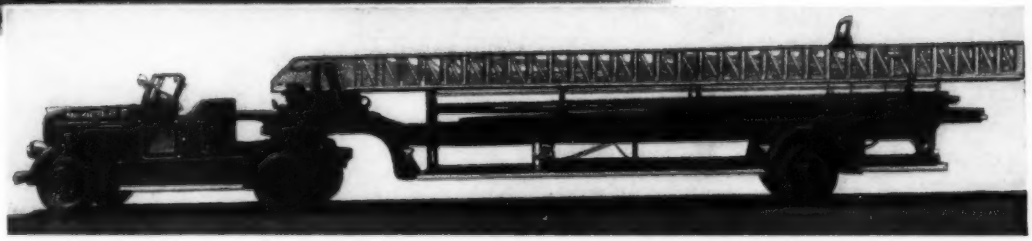

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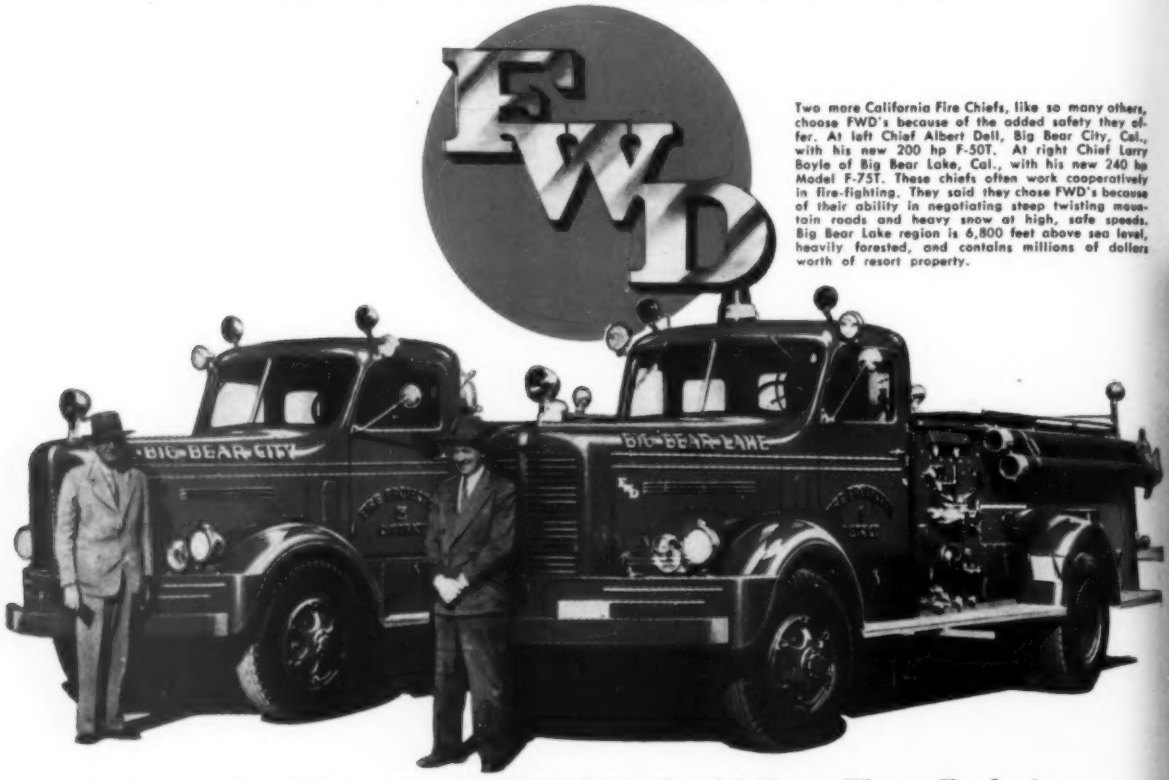

Two more California Fire Chiefs, like so many others, choose FWD's because of the added safety they offer. At left Chief Albert Dell, Big Bear City, Cal., with his new 200 hp F-50T. At right Chief Larry Boyle of Big Bear Lake, Cal., with his new 240 hp Model F-75T. These chiefs often work cooperatively in fire-fighting. They said they chose FWD's because of their ability in negotiating steep twisting mountain roads and heavy snow at high, safe speeds. Big Bear Lake region is 6,800 feet above sea level, heavily forested, and contains millions of dollars worth of resort property.

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